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OUR WINTER ISSUE.

The date is January 27, 1902. The number will be
An *édition de luxe* of the best business journal—
The best for beginning the year's business, as well as
The brightest for a good advertisement, and
The surest for distributing circulars and price-lists.
It will be sent to 12,000 business-places.
It will be read by the best buyers in the trade.
It will be kept for reference in every part of the globe.
It will be well, therefore, for manufacturers and mer-
chants to ensure that they have an advertisement or an
insert in
The Winter Issue of THE CHEMIST AND DRUGGIST.

Summary.

THIS NUMBER completes our fifty-ninth volume.

AN INDEX is inserted between pages 1022 and 1023.

WE criticise some chemists' advertisements on p. 1051.

SIR JOSEPH HENRY GILBERT, F.R.S., the eminent agricultural chemist, is dead (p. 1026).

SOME USEFUL IDEAS on window-dressing will be found in American Notes on p. 1047.

CORYDALINE is nearly related to berberine, according to Professor Daubey's showing (p. 1021).

A COMPREHENSIVE review of the year is the longest article in this issue. It begins on page 1031.

THE COUNCIL of the Chemical Society has made a concession in regard to the day of meeting (p. 1021).

A NEW PILL EXCIPIENT for essential oils and other liquids is described by Mr. George Roe (p. 1044).

MR. BRENT GOOD, of Carter's Little Liver pill fame, is figured sowing his seed on British soil (p. 1028).

OUR MEDICAL GLEANINGS include notes on catheter sterilisation, alcohol-craving, and superfluous hairs (p. 1043).

THERE is little business to report from Mincing Lane this week. The trade of the year is reviewed on page 1037.

A CORRESPONDENT who has solved the problem communicates some sketches of a plan of shop-warming (p. 1056).

SOME NOTES on the latest window attractions in the United States are sent by our representative there (p. 1047).

A METHOD of estimating phenols in essential oils by means of acetic anhydride and pyridin is described on p. 1053.

WE print a selection from the verselets and shop-hints sent in by CHEMIST AND DRUGGIST DIARY readers (p. 1028).

THE FIRST of a series of articles on the diseases of poultry is printed on p. 1055. It deals with the anatomy of birds.

AN ASSISTANT who had a trip across the Herring Pond describes some of his experiences in New York (p. 1046).

A SIMPLE nitrometer for estimating spirit. æther. nit., which chemists' apprentices may make, is described on page 1045.

FORMULA for linoleum-polishes, violet-perfumes, and nettle hair-wash, besides useful practical notes, will be found on p. 1049.

WE APPEND NOTES on some chemists' calendars which have come to hand, and are open to receive others for comment (p. 1054).

MR. JOSEPH INCE completes his notes for students on the compounding of pills. Emulsions will be his next subject (p. 1044).

DISEASES OF POULTRY should bring grist to the chemist's mill. "M.R.C.V.S." contributes a preliminary article on the subject (p. 1050).

MR. TREATT, an essential-oil merchant in London, is taking action against a partner who is said to have drawn too much (p. 1024).

INTERESTING FACTS in regard to maté and other South American produce are printed on p. 1051, along with an article on Argentine pharmacy.

ESSENTIAL OILS, phenol, and some other liquids difficult to make into pills, become easy when made with Mr. George Roe's new excipient (p. 1044).

A CHEMIST'S ASSISTANT in Buenos Ayres gives some particulars of Argentine pharmacy, and other interesting South American notes will be found on the same page (p. 1051).

THE GERMAN COLONIES are progressing, and the Colonial department does good work in promoting knowledge on culture methods. We summarise Dr. Preuss's observations in regard to Central and South America (p. 1040).

Poisons Schedule Card.

We have had extra copies of this card printed and can supply them at 3d. each post free, or 10s. per hundred, if not less than fifty are taken. Packets of one dozen will be sent post free for 2s.

"ART OF DISPENSING."—Mr. H. M. Robin, chemist, of Gorebridge, N.B., writes:—"I am prouder of it than I was of the guinea I won three years ago, and I am sure it will remain with me a good while longer than the former did."

C—D

Corner for Students.

CONDUCTED BY LEONARD DOBBIN, PH.D.

REPORTS.

THE powder distributed to students on November 27 contained 5 parts of lead nitrate, 4 parts of bismuth oxynitrate, and 1 part of zinc hydroxycarbonate.

The calculated composition of such a mixture is—

Pb	31.3
Bi	29.1
Zn	5.7
NO ₃	27.4
CO ₃	1.8
O	2.2
OH	2.0
H ₂ O	0.5
	<hr/>
	100.0
	<hr/>

The powder also contained a small quantity of chloride as impurity, together with mere traces of iron, calcium, and magnesium.

Samples of the powder were distributed to 103 students, and 62 reports were sent in for examination.

The failures in the detection of the several constituents of the powder were:—(a) Metallic radicals: lead, 4; bismuth, 2; zinc, 17. (b) Acid radicals: nitric, 1; carbonic, 8. The small quantity of water given off when the powder was heated was overlooked by the majority of our correspondents.

The feature of the reports on the present exercise is the large number of failures to detect zinc. These failures were chiefly due to the relatively small proportion in which zinc was present, and to the fact that in a number of cases the white zinc sulphide precipitate was masked by some lead or bismuth sulphide precipitated along with it (in consequence of the hydrogen-sulphide precipitation having been carried out in presence of hydrochloric acid which was of sufficient concentration to prevent the action from becoming complete). A separation could have been effected quite easily, but when the presence of either lead or bismuth was detected in the ammonium-hydrosulphide precipitate the latter was usually put aside without further examination for zinc or other metals.

Several correspondents describe the quantity of gas evolved on treating the powder with a dilute acid as too small to admit of testing it for carbonic anhydride by means of lime-water. Minute quantities of this gas may be readily detected by placing a small piece of clean bright zinc along with the powder to be tested in a test-tube with dilute hydrochloric or sulphuric acid, and (by means of a delivery-tube fitted to the test-tube) leading the mixture of hydrogen and carbonic anhydride evolved into a small elbow-piece of narrow glass tubing containing a few drops of lime-water. Even when only a very small quantity of carbonic anhydride is evolved, it is gradually carried over by the current of hydrogen and brought into contact with the lime-water, when the usual opalescence is obtained.

The presence of borate in the powder was reported by more than one correspondent. We have been unsuccessful in detecting the slightest trace, but we wish to state our own recent experience in regard to the turmeric-paper test. A certain commercial specimen of this paper was found to yield a faint but quite distinct reddish-brown coloration when treated with hydrochloric acid and then carefully dried, and this colour gave place to green when the paper was moistened with solution of sodium hydroxide. The paper in question behaved, in fact, as if it already contained

a trace of a borate, and it was worthless, in consequence, in testing for the boric-acid radical. It is just possible that the same kind of paper may be in the hands of some of our correspondents, therefore we advise all who obtained an indication of the presence of a borate in this month's powder to make a blank test such as that described above, and to discard their turmeric-paper if the faintest trace of a green coloration is observable after the final moistening with sodium-hydroxide solution.

As on previous occasions, a number of students report one or more of the substances which are present only as traces, as if they were important constituents of the powder. Chlorine, iron, calcium, and magnesium are not infrequently so reported. We attribute the apparent detection of chlorine, in quantity, chiefly to the use of insufficiently cleaned test-tubes; that of iron to impurities in the acids and ammonium chloride used; and that of calcium and magnesium to the imperfect removal of metals belonging to other analytical groups. It seems quite certain that many students take no steps to ensure the freedom of the reagents they employ from the presence of impurities in such quantities as may seriously mislead them. Special cases have already been referred to on one or more occasions under the heading of Special Memoranda, but the whole subject demands the student's close and constant attention if good results are to be obtained.

PRIZES.

The First Prize for the best analysis has been awarded to

JOHN G. MURDOCH, c/o Wilkinson & Simpson (Limited),
Newcastle-on-Tyne.

The Second Prize has been awarded to

ANNIE M. BARR, 57 Kempoch Street, Gourcock.

First Prize.—Any scientific book that is published at a price not greatly exceeding half-a-guinea may be taken as a first prize.

Second Prize.—Any scientific book which is sold for about five shillings may be taken as a second prize.

The students to whom prizes are awarded are requested to write at once to the Publisher naming the book or books they select.

MARKS AWARDED FOR ANALYSES.

John G. Murdoch (1st prize)	99	Eugenol	89
Annie M. Barr (2nd prize)	98	Jas. R. Stott	88
W. Maxwell	97	A. C. Denton	88
Nestor	97	Richardus	88
Talc	97	Carolus I.	87
W. A. R.	97	Lysander	87
Edinburgum	96	Sylvestris	86
Thallophyta	96	John F. Ward	85
Tungsten	96	Aurum I.	84
Inception	95	Brassica	84
Iris	95	Lucifer	84
J. M.	95	Chemiotaxis	83
Loo	95	Cribden	82
Xylem	95	Cymene	82
H. M. Winton	94	Ozone	82
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Viburnum	94	S.V.E. (Manchester)	68
Sidney Burden	93	Glacialine	67
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Nemo	90	Angus Scott	55
Westminster	90	C. H. H.	53
W. H. Hurn	89	Acetum	52
C. H. B.	89	Tabloid	34

TO CORRESPONDENTS.

Special Memoranda, suggested by this month's reports:—

1. Do not report a substance as "insoluble in water" merely because it does not dissolve entirely. One-half of

the present powder was soluble in water, yet in many reports it was simply described as insoluble.

2. Do not add special reagents, such as sodium hydroxide, ammonia, potassium chromate, potassium ferrocyanide, &c., to complex "original" solutions known to contain a number of metallic radicals (say lead, bismuth, and zinc) in order to "confirm" the presence of one of these radicals, in disregard of the fact that the others may yield reactions which will entirely mask the particular reaction it is desired to observe. This is a serious but very common analytical error.

3. Do not omit to make preliminary dry-way tests. Lead, bismuth, zinc, and the nitric-acid radicle were easily detected in the present mixture by the careful application of a few simple tests of this kind.

4. Use clean test-tubes, pure reagents, and distilled water.

Special Note.

Students who use assumed names are requested to adhere to them throughout the competition.

W. MAXWELL.—You describe, perhaps unintentionally, zinc sulphide as having been entirely dissolved by boiling with sodium-hydroxide solution; zinc sulphide is not soluble, however, under such circumstances.

EDINBURGH.—You digested the ammonium-hydrosulphide precipitate with acetic acid, filtered, and then passed hydrogen sulphide through the filtrate to test for manganese. Ammonia should also have been added to neutralise the acetic acid, in which manganese sulphide is soluble.

THALLOPHYTA and EUGENOL.—Your magnesium-sulphate test for carbonate was delusive. The precipitate you obtained most likely consisted of lead sulphate.

INCEPTION, W. H. A.-IN.-M., and RICHARDUS.—The hydrogen-sulphide precipitate must have contained some lead sulphide, although you failed to obtain any lead sulphate when examining it. The precipitation of lead as chloride by the addition of hydrochloric acid is not complete.

IRIS and VEP.—The filtrate from the lead chloride still contained lead. The fact that you failed to obtain any precipitate on passing hydrogen sulphide through it proves that it contained too much free acid, and required dilution with water.

J. M.—It is superfluous to test for mercurous and silver chlorides in a hydrochloric-acid precipitate which dissolves completely in boiling water.

LOO.—Your tests for acid radicals were not exhaustive. Thus, you give no tests for phosphate or borate.

XYLEM.—The account of your analysis is hardly full enough to do justice to your work. The absence of cadmium and of the boric-acid radical, for example, are not established.

H. M. WINTON.—You repeatedly mention filtering when no precipitate has been produced. Why spend time in unnecessary operations? In trying the cacodyl test for acetate, the arsenious anhydride and the substance should be heated together, not merely mixed.

EXCELSIOR.—You appear to have omitted to test for ammonium salts.

SIDNEY BURDIN.—Film-tests, carefully applied, were capable of yielding much more information than you obtained from them.

PHENOL.—Zinc ferrocyanide is almost white, not yellow. The yellow appearance often observed is due to the yellow solution of potassium ferrocyanide having been added in excess. Why do you not give a systematic account of your tests for acid radicals?

CRUCIFERE.—See reference to test for borate in general remarks.

NEMO.—You should carry out a systematic examination of each group-precipitate. In the present instance you give no tests proving the absence of various metals that might have existed as sulphides in the hydrogen-sulphide precipitate. See reply to "Crucifere."

WESTMINSTER.—Acetic acid, on account of its own pronounced odour, is a particularly unsuitable acid to use in testing for carbonates, sulphides, &c. Dilute sulphuric acid is usually the best acid to employ.

W. H. HURN.—There is some mistake about the ammonium-sulphide precipitate dissolving in acetic acid. It consisted of zinc sulphide, which is insoluble in acetic acid.

C. H. B.—Both lead and bismuth sulphides are easily dissolved by hot dilute nitric acid, and they cannot be separated by means of it in the way you describe.

JAMES R. STOTT.—The odour you mistook for that of acetic acid was due to the hydrochloric acid you added. Dilute sulphuric acid is usually the most suitable acid to employ in testing for carbonates, &c.

CAROLUS I.—Care is required in order to obtain reliable results with the acetic-ether test for acetates. Practise with a few known mixtures until you have found out the way to use the test effectively.

LYSANDER.—You have omitted to give a summary of the results obtained in the analysis.

JOHN F. WARD.—You give no evidence for your assumption that acetate was present.

AURUM I.—Silver, if present, would be found in the hydrochloric-acid precipitate, not in the filtrate from it. See reply to "Carolus I."

CYME.—The bright-red colouration you observed on treating last month's mixture with brucine was no doubt due to the action of the chromate present in the mixture, together with the sulphuric acid, upon the brucine.

TANGLEWOOD.—Highly dilute solutions of lead salts do not give any precipitate on the addition of hydrochloric acid. Lead chloride is distinctly, though sparingly, soluble in cold water.

STUDENTIOR.—You should try to make your examination systematic. Random tests, such as you describe in your report, are exceedingly unsatisfactory, and you omit all reference to barium group, magnesium, and alkalies.

GLACIALINE.—Lead and bismuth are not completely precipitated as sulphides by means of hydrogen sulphide from solutions which contain too much free hydrochloric acid or are too hot.

GNEISS.—You boiled some of the original powder with sodium hydroxide, filtered, and then added hydrochloric acid and barium chloride to the filtrate. A white precipitate was formed (insoluble in dilute nitric acid), which you mistook for barium sulphate. This is an excellent example of the unsuitability of sodium hydroxide as a general reagent for employment in this way. The precipitate in question consisted of lead chloride.

NISUS.—You will find it worth while to make up a mixture for yourself in imitation of this month's mixture, and to practise upon it until you can detect its constituents with certainty. See reply to "Carolus I."

ALOES.—The bismuth-nitrate solution to be used in Carnot's test for potassium may be made by dissolving 5 grammes of bismuth oxynitrate in a little more than the necessary quantity of dilute nitric acid, and diluting with water to 100 c.c.

R. L. BOYD.—If instead of writing "Group 3, no result; Group 4 showed calcium," you had given some outline of the tests you applied, it might have been possible to point out why you failed to detect zinc, and supposed you had found calcium in quantity. The powder did not contain an acetate.

PHOTO.—It is rather a remarkable proceeding to attempt to prove the existence of carbonate in the original powder by testing a solution prepared by boiling the powder with sodium-carbonate solution.

B. K. N.—Lead oxalate was not a salt likely to be present in the portion of the powder dissolved by water.

C. H. H.—Your "tests" for tin, arsenic, and antimony are quite worthless. Study the conditions under which the reagents you employ are applicable. See reply to "Lysander."

English News.

Local Newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Coupons with Soap.

Jacob Horrocks and Collinson Poole are the principals of a soap-manufactory at Clayton, and purchasers of their soaps received with the article coupons, which on accumulation were returned to the company. The three persons in each district who sent in the largest number of coupons were entitled to prizes consisting of wringing-machines, step-ladders, &c. Defendants have been prosecuted under the Gaming Act of 1802, but the Magistrates came to the conclusion that there was no breach of the Act, and dismissed the summons.

Brevities.

The Imperial Institute is to be handed over to the nation. So it was decided by the Council on Saturday, December 21.

On December 23 a fire occurred on the premises of Messrs. A. Lindsay & Sons, surgical instrument makers, 28 Ludgate Hill, City. The outbreak was soon overcome.

Bedford Town Council has accepted the offer of Mr. Kear Colwell, public analyst, to analyse seventy samples for 52*l.* 10*s.* a year, with a further fee of 15*s.* for each extra sample.

William Montgomery, 20, chemist's assistant, Calabria Road, Highbury, was fined 10*s.*, or seven days, at North London, on December 23, for wilfully extinguishing a public street lamp at Annette Road, Holloway, on Sunday night. Constable Woolley said the prisoner told him he had done it for a bet.

Harry Fox, a Chapeltown grocer, was summoned at Sheffield, on September 20, for selling compound liquorice-powder, which contained only 6·5 per cent. of sulphur, instead of 8·3 per cent. The defence was that sulphur is the smallest and cheapest ingredient, and that defendant had sold the sample exactly as he received it from the wholesale druggist. The case was withdrawn on payment of costs.

Christmas in the Shops.

The Tunbridge Wells pharmacies are very generally making displays of perfumes in cases. The Kent Drug-stores has model engines as well.

Pharmacy at Boots' central emporium, High Street, Sheffield, seems, according to a report in the *Sheffield Independent*, to have entirely given place to presentation-books and stationery. A pair of engravings, "Home Again" and "The Love Letter," recently published by Boots, are said to be popular.

According to the *Rhyl News* Mr. P. J. Ashfield, chemist, High Street, Rhyl, claims to hold one of the largest stocks in North Wales. A fountain spraying forth "Welsh Mountain Essence" is a feature of the Christmas display, whilst to each purchaser of a bottle of the perfume a tablet of soap is presented.

In looking over a Scotch paper a little advertisement of Messrs. Cummings Brothers, chemists, 49 Reform Street, Dundee, attracted our attention. A four-wheeler and a hansom cab are shown, the occupants of which are on Christmas shopping intent. The inscription merely asked such to stop at Cummings's for perfumery presents.

The attraction in Mr. Lake's pharmacy at Tiverton is, according to the *Devon and Somerset Weekly News*, the large number of war pictures dealt with. Officers at the front send their films to Tiverton to be developed and printed, and as a consequence of the good workmanship of Mr. T. W. Robson, Mr. Lake's manager, large orders are daily received from South Africa for prints.

Drug-contracts.

The following have been arranged:—

Belper Board of Guardians.—Mr. C. W. Southern, chemist and druggist, Belper, to supply druggists' requisites.

Cumberland Infirmary.—Mr. J. Hallaway, Carlisle, to supply "emergency" drugs.

Brighton Town Council.—The Sanitas Company (Limited), to supply disinfectants.

Mansfield Board of Guardians.—Mr. J. G. Agar is appointed chemist and druggist to the workhouse.

Irthlingborough (Northants) Urban District Council.—In future all the disinfectants for the sanitary inspector will be obtained from the local chemists.

Bolton Workhouse.—Messrs. Thomas Moscrop & Co. (Limited), druggists, Folds Road, Bolton, to supply disinfecting-fluid and sulphur.

Wal-sall Board of Guardians.—Messrs. Elliott & Son, chemists and druggists, 42 Park Street, Walsall, to supply single trusses at 2*s.* 6*d.*, double at 2*s.* 11*d.*, cod-liver oil at 6*s.*, and olive oil at 5*s.* per gal.

At the weekly meeting of the Cheltenham Board of Guardians on December 19 the tenders of Mr. W. H. Hill,

chemist, High Street, Cheltenham, for the supply of sanitas (crude), 4*s.* 3*d.* per gall.; Savory & Moore's food, 8*s.* 6*d.* per doz. tins (1*s.* size); and waterproof sheeting, 3*s.* 6*d.* per yard, were accepted.

The Poisons Committee.

As mentioned last week, the Committee appointed by the Lord President of the Council to inquire what alterations may be expedient in Schedule A of the Pharmacy Act, 1868, sat at Whitehall, with Sir Herbert Maxwell, Bart., M.P., in the chair. There were also present Mr. A. Cross, M.P., Professor T. E. Thorpe, Professor W. A. Tilden, Dr. Stevenson, Mr. W. Martindale, Mr. J. H. Harrison, and Mr. E. B. Masham (Secretary). The following witnesses were examined: Mr. Isaac Connell, Secretary of the Scottish Chamber of Agriculture; Mr. W. Wynn Westcott, M.B., Coroner for North-East London; Mr. J. W. Lytle, manufacturing chemist, Liverpool; Mr. T. V. Pettifer, F.R.C.V.S., manufacturing chemist; Mr. J. L. Major, of Messrs. Major & Co. (Limited), manufacturers of disinfectants; Mr. James Cockburn, chemist, managing director of Messrs. F. Spite & Co. (Limited), manufacturers of chemicals and proprietary goods, including sheep-dips and weed-killers; Mr. W. Darlington, farmer and member of Council of the Worcestershire Agricultural Society; and Mr. R. H. Smith, Sheffield, Secretary of the Ironmongers' Federated Association.

Farmers and Poisons.

At a meeting of the Rye and District Farmers' Club the other day Mr. Matthews, Secretary of the Central Chamber of Agriculture, gave an address on the agricultural situation, in the course of which he made the following remarks:—

Another small question was brought before his notice the other day on which they might pass a useful resolution. The Pharmaceutical Society a short time ago took up a prosecution against a man for selling weed-killer, he not being a chemist. It was thought it would be very inconvenient that farmers should have to go only to certified chemists for any dressing they might want. It gave the chemists a monopoly, whereas that ought to be a free trade and by competition bring the price down. But, of course, there must be every safeguard given. A Departmental Committee had been appointed, and the Board of Agriculture had taken the matter up.

In Trouble.

At Hanley, on December 18, Charles Frederick Ford, chemist's assistant, was charged with embezzling 7*s.* 9*d.*, belonging to his employers, Edmund Jones and others, wholesale chemists, Victoria Road, Hanley. He was remanded.

A labourer named Hickey was charged at West London Police Court, on December 19, with stealing a bottle of cod-liver oil, value 8*d.*, from Boots (Limited), Waltham Green. Prisoner bought some lozenges, and picked up the cod-liver oil as he was going out. The magistrate ordered him to find a surety to come up for judgment in twelve months.

The Alleged "Long Firm."

At Worship Street Police Court on December 21, James Hodges, Henry Bedding, and Christian R. Lee, the three men who have been several times before the Court (see *C. & D.*, December 14, page 943) charged with conspiracy to defraud and with obtaining goods from numerous tradesmen by false representations and with intent to defraud, were brought up for final examination. Similar evidence to that given on the previous occasion was given. Bedding was shown to have personally received on three or four occasions cameras which were ordered on "Sinclair's" paper to be delivered to bearer. Hodges, who had said he was proprietor of the business and that there was plenty of money in it, was identified; and Lee was said to have been in charge of the Mare Street shop. Lee read a long written statement, in which he detailed the obtaining by Bedding and Hodges of the goods in question, his statement tending to show their guilt and to exonerate himself. The reading of the statement excited the two prisoners named, they constantly interrupting by calling Lee a liar, and quite a "scene" was caused by the interruptions being taken up by female friends of Bedding and Hodges at the back of the Court. The prisoners were at length committed

for trial at the Central Criminal Court, the Magistrate offering to accept bail in 100% for each.

Photographic Chemistry.

Mr. John Gibson, chemist and druggist, Hexham, on December 18, finished the delivery of a course of twelve lectures on elementary photography. At the conclusion the Technical Education Committee came in for thanks, but the Chairman of the committee confessed that the whole of the thanks were due to Mr. Gibson, than whom they could not have had a better instructor. Mr. Gibson protested that the things said of him were far too flattering, but he would be glad to place his services at the disposal of the committee at any future time.

Manchester College of Pharmacy.

Mr. G. F. Lunt was awarded a copy of "Pharmacopœdia" for the best work in an examination in Theoretical Chemistry Pharmacy and allied sciences, held at the College at the close of the term. Mr. R. McWyn was judged to have done the best work in practical analysis, and was awarded the medal given by a M.C.P. "Old boy."

The Mixture Did no Harm.

On December 21 Mr. Luxmoore Drew held an inquest at Fulham on the body of a child who died from broncho-pneumonia following measles. The mother said she did not call in a doctor in case of measles, but treated her children with saffron and brandy, and kept them warm. The dead child had quite recovered from the measles, but a fortnight after had a cold, for which she gave it brandy and some cough-mixture she got from a chemist's. Arthur William Suckling, a chemist's assistant at Parke's Drug Stores, 336 North End Road, Fulham, said the mother asked for 3d. of cough-mixture, and he supplied her with a stock preparation of honey, squills, and aniseed, which he sold for all cases of coughs or colds in children. Dr. Young, who was called after death, said it was due to the broncho-pneumonia following measles. The cough-mixture had done no harm. It may have eased the cough, although it was not a wise thing to give, because the assistant could not tell how the ailment arose. The Coroner, nevertheless, took the usual opportunity of saying it was not a chemist's province to advise what medicine should be taken, but simply to make up medicines ordered by a doctor.

A Chemist's Accident.

A serious accident occurred last week at the works of the Blair Camera Company, Foot's Oray Mills. Mr. E. J. Wall, a chemist and druggist, who is manager of the works, was drawn into the machinery whilst adjusting a belt on a wheel. His left arm was badly broken in two places, and his right leg was fractured below the knee. Mr. Wall was removed to the Sidcup Cottage Hospital, and is doing well.

Bravo.

Mr. Horace E. Flemons, when assistant with Mr. Upson, chemist, High Street, Maidenhead, last October rescued a lady from drowning in the Thames at Taplow Reach. The Royal Humane Society awarded Mr. Flemons the honorary testimonial of the Society, inscribed on vellum, as an acknowledgment of his heroism. The presentation was made at the Northampton (Petty Sessions last week by the Mayor. Mr. Flemons, in thanking the Mayor, said he only did his duty.

The New German Tariff.

A meeting of the Board of Trade Advisory Committee on Commercial Intelligence was held on December 19 at the offices of the Board, Whitehall Gardens, S.W., Sir Alfred Bateman, K.C.M.G., in the chair. The other members of the committee present were Mr. H. Llewellyn Smith (Deputy-Comptroller of the Commercial, Labour, and Statistical Departments of the Board of Trade), Mr. F. Brittain (ex-President of the Sheffield Chamber of Commerce), Mr. T. Craig-Brown (of the South of Scotland Chamber of Commerce), Professor Wyndham Dunstan, F.R.S., Mr. C. A. Harris, O.M.G., Mr. T. W. Holderness, C.S.I., Mr. W. H. Holland, M.P., and Sir Albert K. Rollitt, M.P., with Mr. G. J. Stanley (of the Commercial Department of the Board of Trade), the Secretary of the Com-

mittee. Mr. Algernon Law, of the Foreign Office, attended the committee, in the absence of Sir H. G. Bergne, K.C.M.G., and Mr. T. Worthington, the Principal of the Intelligence Department of the Board of Trade, was also present. The principal business at the meeting had relation to the proposed new German Customs tariff.

Upset the Stomach.

On December 20 a girl of 18, named Alice Parkin, 53 Elton Street, Walkley, drank a quantity of syrup of mulberries and elixir of vitriol, which she had been recommended to take for a cold. It disagreed with her, however, the symptoms alarming her friends so much that she was conveyed to the Royal Hospital, but in a few hours was allowed to return home.

A Dispenser's Holiday.

At the Salford Hundred Court of Record on December 19, an action was brought by Miss Ellen Lonsdale, dispenser, against the Denton and District Provident Dispensary, for damages for wrongful dismissal. In July she arranged to have a holiday, and employed a substitute to take her place for four weeks, understanding that the Board of Management and the medical officer agreed to this arrangement. At the end of her holiday the Board informed her that they considered she had left their service without giving notice, and subsequently they sent a letter dismissing her, on the ground that she had been guilty of misconduct in absenting herself from duty. She now claimed 5% for the month during which she employed a substitute, 5% in lieu of notice, and 2% for lodgings during her absence. The evidence led the jury to return a verdict for the plaintiff.

Notions about Dentistry.

By twelve votes to sixteen, Norwich Board of Guardians on December 18 decided to engage a dentist for the boys' home connected with the workhouse. It was stated that there were thirty-eight teeth to be stopped, and eighteen temporary teeth to be regulated, and the dentist's charge was estimated at 11% 17s. 6d. One member declared that the whole of the work could be done in three hours, while another took exception at only one dentist being applied to for an estimate.

[Drug-sampling.

A Birmingham correspondent says the chemists in the east end of the city have had the dulness of trade brightened by an extensive order from the Council House for paregoric, Friar's balsam, and tincture of iodine. The only drawback was the subsequent division after purchase. "We got full price, and it is five weeks ago!" Since then the tincture of iodine *venue* has changed to the Handsworth district. A traveller called after the visit to the first man, and walking round to his brethren, informed them of the incident. Only one sample of the stuff was obtained, and that the first. Pharmacists do not quite like the annoyance of such proceedings, and prefer to be out of stock when these emissaries present themselves at the counter.

The Week's Poisonings.

The cases of poisoning this week have been by means of scheduled poisons. Three persons sought laudanum as a means of euthanasia; one, carbolic acid; and one, a working jeweller, cyanide of potassium. The depressing weather seems in these cases to have overcome the exhilarating effect of Christmastide.

Irish News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Analyst's Appointment.

At the last meeting of the Kilmacthomas (co. Waterford) Guardians the applications for the post of analyst to the Union were considered. There were four in all, as follows: Professor C. R. C. Tichborne, of Dublin, offered his services for 6% per year; Mr. E. Lapper, Royal College of Surgeons in Ireland, Dublin, for 10% (or 5%, with an additional fee of 2s. 6d. for each sample submitted); Mr. Walter Thorpe, Limerick,

for 10*l*. (and, if the number of drugs in one year exceeded forty, an additional fee of 5*s*. per sample); Mr. Robert Barklie, Belfast, 10*l*. (or 5*l*. and 2*s*. 6*d*. for each analysis after the first forty). Professor Tichborne's offer (at 16*l*.) was unanimously accepted.

No Competition.

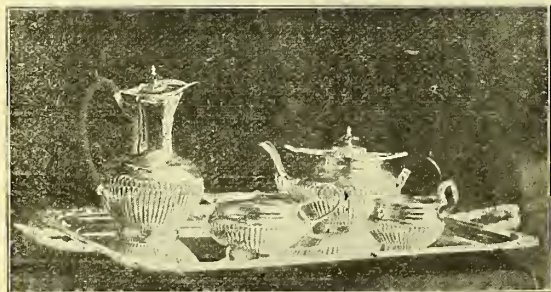
At the last meeting of the Enniscorthy Lunatic Asylum Committee, the Clerk (Mr. Pounder) said that there was but one tender for the supply of medicines—namely, from Messrs. Hunt & Co., Dublin. Dr. Greene: If you have only one tender, you have no competition whatever. Mr. Donohoe: Who was the contractor last year? The Clerk: Mr. Cooke, of Gorey. Mr. Donohoe: If no injustice would be done to the contractor who sent in the tender, we might defer this contract for a month. Dr. Greene said that no member of the committee had become acquainted with the contents of the tender. It was decided to postpone the contract for a month.

Scotch News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Marriage Bells.

The wedding of Mr. H. Ewing Smith, F.O.S. (one of the third generation of the well-known house of T. & H. Smith & Co.), and Miss Lizzie Pillans, which is recorded elsewhere in this issue, was attended, amongst others, by a company from Edinburgh, which included the heads of the various departments of the firm in Edinburgh. They travelled to Glasgow in two dining-saloons attached to the 1.5 P.M. express on Friday, December 20. Luncheon was served on the journey (an innovation, by the way, in Edinburgh to Glasgow railway travelling). The presents were both numerous and costly, and included two handsome ones from the employes in Edinburgh and Glasgow and London. The one from the former took the form of a sterling silver tea service and salver, on the latter of which was inscribed: "Presented to Henry Ewing Smith, Esq., by the employes of T. & H. Smith & Co. in Edinburgh and Glasgow, on the occasion of his marriage, December 20, 1901." The presentation was made in the Royal British Hotel, Princes Street, Edinburgh, by Mr. Smiles, on December 7. The gift from the employes in London was a magnificent marble timepiece, with side orna-



ments. On the evening following the wedding the firm entertained the employes in Edinburgh and Glasgow in the Royal Arch Masons' Hall, 75 Queen Street. The entertainment took the form of a *conversazione*, and was presided over by Mr. T. Connell Smith, who had acted as groomsman the day before. Tea was served immediately on entering the hall, the rest of the evening being occupied with biograph views of the war, &c., and a programme of songs, recitations, and mandoline and guitar selections. Mr. Bayne thanked the firm on behalf of the employes for their hospitality and wished long life and happiness to the newly-wedded couple.

Doctors' Shops.

Mr. James Robertson, Registrar in Scotland for the General Medical Council, is advertising in Scotch newspapers the Council's recent resolution in regard to doctors' shops.

Jubilee Aftermath.

The hinmost month o' nineteen one
Was only aughteen days begun
When Scotsmen, spite o' snaw and win',
A' ran to Peter Boa.
For Peter was a doucelike chiel,
A cautious, conscientious chiel,
And Claude and John were there as weel,
A' helpin' Peter Boa.

The dinner was unanimously voted a great success—but rather long. The edible portion was *recherche*, and the "collops and minced balls," with fifteen-year-old whiskey in liqueur glasses as an accompaniment, was not one of the least enjoyable items on the menu. Even Southern-bred pharmacists of light and leading confessed to having a hankering after another helping of that dish. Some of the speeches did seem long. In the discussion afterwards this was universally acknowledged—but condoned. "O' ay, they spoke a lang time, some o' them; but, man, mind, ye it's their only chance in a twalmonth." The medical and municipal luminaries being anxious to get home in "elder's 'oors," the principal toast of the evening—"The North British Branch"—was relegated to the end of the list instead of following "The Pharmaceutical Society." This was a great vexation to many pharmacists who were impatient to hear what Mr. Carteighe had to say, and yet wanted to bed before morning. When it was done the speech was unanimously voted "a good one." A considerable difficulty was experienced, however, in getting at whether Mr. Carteighe's remarks were thought to be quite applicable to Scottish pharmacy. His exordium to put "the North British Branch on the soundest possible footing" was hinted at in a cautious way by some, as being advice which was not quite necessary, and if he had not done it so nicely it might have been resented. The speech in which Mr. Boa replied was a revelation and a surprise to many of his *confrères*, who had regarded him as not given to oratory. His history of the Branch was set forth in an evenly eloquent fashion, and fascinated and engaged the attention of the then diminished auditory to a degree not accorded to other speakers. The representatives and descendants of the founders present were cheered to the echo, and the mention of the unwearying services accorded to Scottish pharmacy by Mr. Rutherford Hill were the signal for a boisterous demonstration. The music was no mean part of the evening's proceedings. The arrangements, moreover, were admirably carried out by Mr. Tait, who is Mr. Rutherford Hill's assistant at York Place and a baritone of excellent calibre. He brought several excellent artistes, and with the help of Mr. W. L. Currie, whose singing voice is familiar in the three kingdoms, and Mr. William Dykes (of Lorimer & Moyes, Glasgow), who led off admirably with the prelude from "Pagliacci," the enjoyment was enhanced,

Then wi' content oor lips we smack
We brunt tabacca; then lay back,
An' sure as aicht yon birkies shak'
Till weel on in the mornin'.
First martial Currie had his say,
Then Sodgers, Bailies, Doctors, tae
A' made us lauch till we were wae
Tae leave them in th' morrow.

Fire.

A fire broke out at midnight on December 17 at Messrs. Anderson & Ireland's, chemists, 513 Springburn Road, Glasgow. The fire was confined to one building, and was promptly tackled by the fire brigade. Damage to the extent of 250*l*. was done.

Personal.

Mr. Stuart Hendry, chemist and druggist, Pitlochry, last week received a handsome present from his friends there on his leaving for London.

Mr. James Reid, chemist and druggist, delivered a lecture on the "Humours of Parliament" at the Collins Hall, Dumfries, on Wednesday, December 18. Mr. Reid is one of the popular lecturers of the district.

Commemorating a Good Man.

There has just been erected in Ioverurie churchyard a handsome monument in memory of the late Mr.

Munro, chemist and druggist. The monument has been provided by public subscription, as a tribute to the memory of Mr. Munro, whose many kind and generous gifts were always freely given and had endeared him to rich and poor alike. The work is carried out in Kemnay granite.

Business Change.

It is reported in the *Scottish Law Courts Record* that the business of the late Mr. Thomas Walker, 67 King Street, Stirling, chemist and druggist, has been disposed of by the trustees as at December 1 to Mr. John Walker, his son, by whom all debts.

The Food and Drugs Acts.

At the meeting of the County Council of Dumbarton, which was held in Dumbarton on December 17, a discussion arose on the proposal of the Finance Committee, on whom the matter was pressed by the Board of Agriculture, that the County Council should agree to pay the cost of the administration of the Food and Drugs Acts within the burgh. The proposal is that the county for the purposes of these Acts be administered as a unit, the expense being borne out of an assessment leviable both in county and burgh. An amendment was carried that the county do not undertake the work of the Food and Drugs Acts within the burghs unless at the expense of the burghs who made the application.

A Chemist's Furniture.

A multiplepoinding case was decided by the Lord Justice-Clerk and Lords Young, Trayner, and Moncreiff in the Court of Session, Edinburgh, on December 19. It was in regard to a sum of 250*l.*, the balance of the price of the furniture which belonged to Francis Weatherston, chemist, Ayr. His wife, Mrs. Weatherston, Stobo, claimed it in virtue of an arrestment which followed on a decree in her favour in an action of separation and aliment in June, 1900. Mr. W. C. Beattie, Weatherston's uncle, also claimed the money in respect of a loan of 300*l.* to Weatherston, in security of which the furniture was delivered to him, with power to sell. The Sheriff-Substitute Guthrie had decided in favour of Mrs. Weatherston. Beattie appealed, and the Court now sent the case back to the Sheriff-Substitute to state findings in fact and in law.

Ground Wood as a Tobacco-substitute.

A few months ago two Dundee gentlemen (one said be a chemist) discovered that ground wood treated in a certain way has all the appearance of tobacco. A quantity of this material was forwarded to a well-known firm of tobacco-manufacturers in England, who in turn handed it over to the Inland Revenue. A watch was afterwards kept on the two individuals by the authorities, and on Saturday last the two men were subpoenaed for the Exchequer Court, Edinburgh, and the case will be called early in January. The authorities are suing for penalties.

Who was the Doctor?

THE following paragraph is from the *Times* of December 23, 1901. We shall send half-a-guinea to the subscriber who, by December 31, 1901, tells us by letter or postcard who the "Eminent physician" was. The story has often been retold, and there is doubtless some well-authenticated reference to the identity of the individual. This we would like to get at:—

An eminent physician, who is equally the disciple of Plutus and Esculapius, and very remarkable for continuing his visits to his rich patients, after he has turned their disorders out of doors, attended a lady of some celebrity in the world of wit, for three months after her recovery, and regularly staid with her till he received his dismissing fee of five guineas. Weary of his expensive devoirs, and concluding that to lessen the fee would be to lose the visitor, she ventured to give him four guineas, at the conclusion of his next call. He looked anxiously in his hand; then on the carpet, and stood for some time in evident embarrassment. "Have you lost anything?" inquired the Lady very kindly. "Why, madam, I thought I had dropped a guinea."—"It is only a mistake in the person, sir," rejoined the fair patient. "It is *I* who have dropped the guinea." The doctor, of course, dropped his visits.

Winter Session.

Society of Chemical Industry.

NOTTINGHAM SECTION.

THE third meeting of the present session was held at University College, Nottingham, on December 18. Mr. L. Archbutt, F.I.C., being in the chair. Mr. J. T. WOOD read a paper on

"THE CAPILLARY ANALYSIS OF OILS AND FATS,"

being a method practised by Dr. Friedrich Goppelsroeder, described in a voluminous work published at Basle, in which are given the results of nearly a lifetime of study of the capillary action of various fibres when partly immersed in different liquids. Mr. Wood particularly detailed the author's work on oils, the various kinds rising to different heights up long slips of filter-paper according to the nature of the oils. Although the paper was mainly descriptive of the experiments made on the oils, Mr. Wood explained that the process had other applications, as, for instance, that mixed dyes could be distinguished by its aid, the fibre of the paper having a different capillary power for each component. Thus a drop of a yellow dye that was shown, when allowed to fall on filter-paper, rapidly developed an outer ring of blue, showing that the apparently simple dye was composed of two colours.

Mr. ARCHBUTT said the subject was a fairly abstruse one, but, although interesting from a scientific point of view, it would be impossible to express any opinion whether the observations that related to oils, and which Mr. Wood had described, could be made of use for commercial purposes until further results had been obtained by the examination of a very much larger number of samples. A somewhat similar method had been suggested some years ago by Tomlinson. The oil is dropped on to the surface of water and each oil develops its own individual pattern, very characteristic with some oils, but he was not aware that the method had been found to be of the slightest practical use, the difficulty especially coming in when, as frequently happens, one gets a small quantity of one oil mixed with another. Replying to Mr. MEGGITT, Mr. Archbutt said that the viscosity is affected by heating, especially in the case of mineral oils.

Dr. KIPPING: Does anything volatilise from it?

Mr. ARCHBUTT: It is a physical change.

Dr. KIPPING: Does the viscosity revert to the original?

Mr. ARCHBUTT: In time. The change is no doubt partly due to the solution of solid hydrocarbons, which remain liquid a long time.

Mr. WOOD: I should like to ask Mr. Archbutt, Is the coefficient of capillarity a constant of any use?

Mr. ARCHBUTT: I cannot answer that question. In regard to viscosities, those of the oils given in the table are compared with that of water, but in my opinion this is a great mistake, as it is impossible to compare the viscosity of water with that of oil in a commercial viscometer. I have worked out a method by standardising viscometers with glycerin diluted with water, and in this way a factor is got by which the true viscosity of any oil can be obtained and expressed in absolute measure.

Mr. LOXLEY MEGGITT then exhibited a viscometer apparatus containing some improvements of his own, and explained the method of using it. He also exhibited an Engler's viscometer, which is the standard instrument adopted in Germany. This was followed by a paper by Mr. Loxley Meggitt on "The Sampling and Preparation of Shoddy, Wool-dust, and Similar Materials, for Analysis," in which the sample is dissolved in sulphuric acid, drying up the resulting liquid with lime, and ascertaining the nitrogen in the resulting powder.

Chemical Society.

A MEETING was held at Burlington House, W., on Thursday, December 19, the President (Professor Emerson Reynolds) in the chair. The reading of the minutes of the previous meeting gave rise to a slight echo of the recent agitation with regard to the change of day and hour proposals. Mr. PAGE objected to the Secretaries' description of Professor

Frankland's motion as a "resolution," and suggested the substitution of the word "amendment." Mr. PAKES supported this proposal, but the PRESIDENT compromised the matter by deleting the offending word, so that the phrase read, "Professor Frankland moved the following:—'That, &c.'"

Professor DUNSTAN then read the address presented on behalf of the Society by the President—with the assistance of Dr. Gladstone and Professor Ramsay—to M. Berthelot on the occasion of his scientific jubilee. The text described in flattering terms the eminent French *savant's* services to agriculture, and his researches on thermochemistry and the genesis of hydrocarbons.

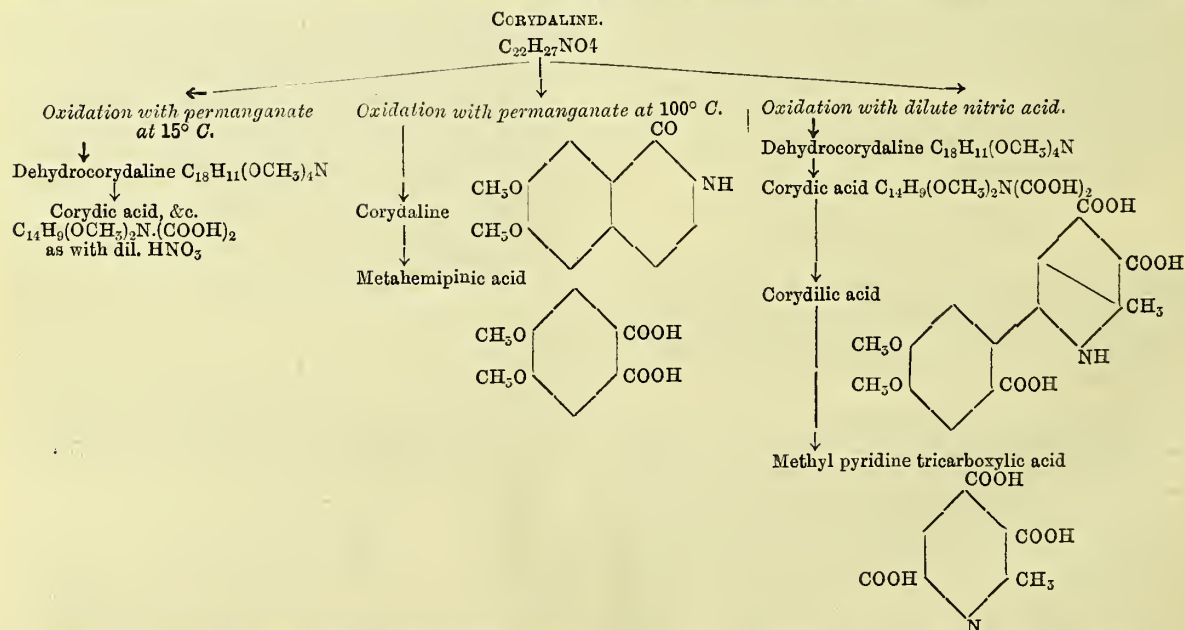
The Fellows were also pleasantly surprised to hear that the Society had received two presents—viz., a bas-relief plaque of Bunsen, copied from one on the great German's grave at Heidelberg, presented by Sir Henry Roscoe, and a portrait of Julius Thomsen, given by Mr. Faber. The thanks of the Fellows were accorded to the donors.

The PRESIDENT announced that the Council, at a meeting held during the afternoon, had rescinded their resolution of July 4 relating to the change of time of meeting, and had decided to hold the remaining meetings of the session on the evenings of the third Thursday and the afternoon of the first Wednesday in each month, whilst the arrangement of meetings for the following session had been placed in the hands of a committee consisting of the President, Treasurer, senior Secretary, and Drs. Armstrong and Foster. These announcements were received with great satisfaction by all present.

This preliminary business occupied rather over half an hour, and the numerous authors present with papers to read looked relieved when it was eventually disposed of. The first papers taken were a series of three on

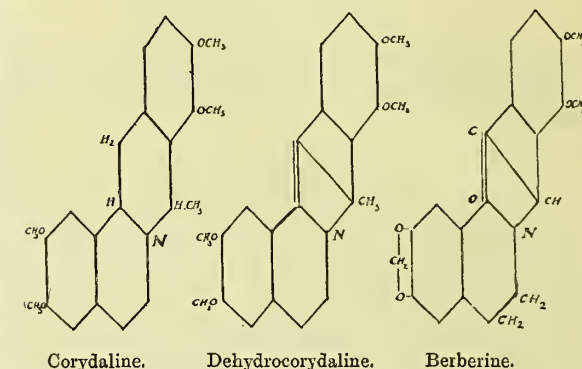
CORYDALINE,

the alkaloid of the Tyrolean plant, *Corydalis cava*, which were read by Dr. DOBBIE for himself and Dr. Lauder. The chemistry of this base is now almost completely worked out, and the authors have been able to assign a highly probable constitutional formula to it, although its synthesis is still probably remote. The alkaloid has the formula $C_{22}H_{27}NO_4$, all the oxygen being present as methoxyl, since hydriodic acid produces from one molecule of the base four molecules of methyl iodide. The products of oxidation, however, furnish the greatest insight into the structure of the substance, and the following scheme shows succinctly their interrelations:—



Careful consideration of the above table will enable readers to follow the authors in assigning the following formula to

corydaline, which it will be seen closely resembles that of berberine, and in this connection it should be observed that while corydaline, like tetrahydro or fully-reduced berberine, is colourless, dehydrocorydaline is, like berberine, intensely yellow.



In the discussion which followed, Dr. W. H. PERKIN, jun. congratulated the authors on this successful termination to the analytical phase of their arduous investigation, which was full of difficulty, not the least of which was the expense a remark *à propos* of Professor Dobbie's observation that every grain of their methyl pyridine tricarboxylic acid had cost 5*l*.

The next paper was by Dr. PERKIN, who had been using his favourite weapon—magnetic rotation—to investigate the

BIROTATION PHENOMENA,

exhibited by freshly-made sugar solutions. Physical and chemical explanations have been suggested to explain these, and Dr. Perkin's results strongly support the chemical theory, incidentally affording further evidence in favour of various constitutional formulæ assigned to maltose, sucrose, and lactose, by Fischer and Tollens.

A paper on

CAMPHOR

by Dr. FOSTER and Miss MICKLETHWAITE came next, and related how α -benzoyl camphor reacts with bromine, giving two stereoisomers differing in melting-point and rotatory

power, and analogous to the α -bromo-nitro camphors described some time ago by Lowry.

Dr. PERKIN, jun., who is a very infrequent visitor at the meetings, but a constant contributor to the *Journal*, then proceeded to describe the work of several years on

BRASILIN AND HÆMATOXYLIN

in the few minutes which remained before closing time. Brasilin is the red-colouring matter of Brazil wood, and has the formula $C_{16}H_{11}O_5$. Since it gives a trimethyl ether and a tetracetyl derivative, four of the oxygen atoms are present as hydroxyl groups, and three of these are phenolic, the remaining one alcoholic. When oxidised brasilin gives meta hemipinic acid, the formula for which is given above, and an acid of the composition $C_{10}H_9O_6$, which was proved to be 2 carboxy 5 methoxy phenoxy acetic acid.

It was now considerably after ten o'clock, and as nobody seemed anxious to hear what Dr. Perman had to say on the "rate of escape of ammonia from its aqueous solutions," the PRESIDENT adjourned the session until Thursday, January 16, 1902.

P.S.—A belated letter from Dr. Gerald T. Moody, of the Central Technical College, dated December 16, appears in the *Times* of December 24. Dr. Moody makes the "crisis in British industry" a nail from which to hang the following statement:—

The indifference of our manufacturers has been notorious; but there is some evidence of an improved condition of affairs, for at the present time a large number of young chemists trained in our technical colleges are employed in industrial works in the vicinity of London. Almost without exception these men are resident Fellows of the Chemical Society; and a large proportion of them are in the habit of regularly attending its meetings, which have been held during over half a century at 8 o'clock in the evening—an hour which in the past has been convenient to all, and particularly to those engaged in industrial and technical work. Although no section of the Society has approached the Council with a request to alter the hour of meeting, that body has decided that from January next the meetings shall be held at 5.30 in the afternoon. The hour fixed is unfortunate, since it will exclude from the meetings practically all those engaged in industrial work. It is particularly inopportune at the present time, when our industries need fostering, that the Council should be so shortsighted as to endeavour to dissociate the Society from the general welfare of our industries. The explanation lies, no doubt, in the fact that the Council is dominated by the Vice-Presidents, most of whom have long since passed the chair and are not alive to the conditions under which the younger men are working.

Workington Chemists' Association.

THE annual meeting was held in Mr. G. D. Paterson's premises, Pow Street, Workington, on Friday evening, December 20, Mr. James Thompson (President) in the chair. The statement of accounts presented by the Hon. Treasurer (Mr. J. R. Mason) showed the finances of the Association to be in a sound condition. Votes of thanks were accorded to the retiring officers, and to Mr. Paterson for providing the room in which the meetings are held. The following officers were unanimously elected for the ensuing year:—President, Mr. J. R. Mason, and Vice-President, Mr. F. J. Birkett. After this the members present (the attendance was exceptionally good) discussed various topics in a friendly way.

South African News.

(From our Colonial Correspondents.)

LICENCES to practise as chemists and druggists in Natal have been granted to Mr. W. R. Pimm and Mr. R. Rees.

PERSONAL.—Mr. William R. Bigham has been officially recognised as Consul-General of the United States of America at Cape Town in place of Mr. Stow.

NATAL NOTES.—Our Durban correspondent writes on November 30 that Mr. H. J. Brereton, chemist and druggist, Durban, who possesses one of the most handsome drug-stores in Natal, was married during the week. When the mail left there was a good deal of sickness in Durban, measles and enteric fever being very prevalent.

PATENTS.—The following applications for Cape patents were filed during the week ending November 28:—An

invention for "Process for manufacturing a safety explosive resembling dynamite," by Richard Kandler, 22 Stephaniensstrasse, Dresden. An invention for "Process for the production of porous contact substances or masses for use in catalytic processes;" and "Apparatus for making sulphuric acid by catalysis," by Dr. Max Schroeder, chemist, of Düsseldorf, Germany.

NATURAL GAS AT CAPE TOWN.—A mining expert, of Pittsburgh, Pennsylvania, named P. Frank Cushing, who recently arrived in Cape Town, after a very careful survey of the base of Table Mountain, has arrived at the conclusion that there is an immense reservoir of natural gas located there, sufficient to illuminate the whole city. Citizens and shopkeepers would welcome such a find if it would only cheapen the cost of lighting in Cape Town, which is, to say the least, very high.

SPIRIT-DRINKING IN CAPE COLONY.—A magistrate in the Colony, speaking on the control of liquor, urges that the term "liquor" should be interpreted in its widest sense, as otherwise natives will substitute eau-de-Cologne and Dutch patent medicines, which contain spirit. There is a large quantity of eau-de-Cologne, made from Cape spirit, sold to natives solely for drinking, whilst even in Cape Town several chemists refuse to sell "eau-de-Cologne," or burning fluid (spirit of wine), on Sundays, as they believe it is required for drinking, the public-houses being closed.

LAYING IN STOCK.—I happened on one occasion to be in a druggist's shop, writes a *Cape Argus* correspondent, when two rough-looking farmers of the "takhaaren" type came in and asked for some pills of a special brand. The particular pills were brought forth done up in a small bottle, but Rustic No. 1 was not taking any that way, and demanded a "pakje" or box of them. This was produced for his inspection, and contained a dozen bottles, whereupon he procured three boxes of the precious pellets. Rustic 2, who up to this stage had remained silent, then observed, "Ik ook drie will hebben," and in return got his three boxes. Each box cost a sovereign, but the two jokers planked down the golden coins gladly, and went their way rejoicing.

THE RINDERPEST.—This disease is rapidly spreading in the Herchel district, particularly affecting the young cattle. Inoculation has not been very effective, and many young cattle are dying, even after six weeks' successful treatment at Kimberley. At a meeting of the Rinderpest Committee, it was stated that the results at the serum station, which hitherto has been practically a private concern, have been very successful. The public are now being invited to send salted cattle for treatment, the owners paying a *pro rata* share of the expenses. Thanks to the energetic action on the part of the Government, rinderpest has been cleared out of the Albert district and out of the Transkei, with the exception of Elliot. An inoculator was on his way thither when he was captured and detained by the Boers. Six thousand cattle were inoculated in the Burghersdorp district alone.

TRADE IN LOURENÇO MARQUEZ.—The U.S. Consul in answer to "many inquiries from manufacturers in the United States who wish to do business with the merchants of this port," points out that little business will be done there until the war has ended. At present, the entire transportation system of South Africa is taxed to its utmost capacity to keep the troops in garrison and in the field supplied with rations, munitions of war, &c., and consignments of goods intended for mercantile houses often lie for months in the holds of vessels at various South African ports before they can be landed. Even after they are landed, if consigned to inland ports, they may have to remain on the docks for weeks before they are finally despatched by rail to their destinations. Again, railway traffic is not perfectly safe, as the Boers every now and then capture or destroy a train on the line of the Delagoa Bay Railroad.

HONG-KONG IN 1900.—Sir Henry Blake, Governor of Hong-Kong, in his report on the colony in 1900, states that its financial condition is sound, and that its business as a great trans-shipping port continues to increase with the expanding trade of the East. Otherwise the report contains nothing of interest to us.

Legal Reports.

High Court Cases.

THE BADGER TRADE-MARK.

ON December 21, Mr. Justice Buckley gave his decision in a trade-mark case of some importance, in which the applicants, Hall & Woodhouse (Limited), brewers, wine and spirit merchants, and dealers in aerated waters, Blandford, Dorset, sought to have the trade mark of a badger owned by J. T. Verity & Co. (Limited), mineral water manufacturers, Pateley, Yorkshire, removed from the register. The applicants about 1875 used the figure of a badger as their trade mark in connection with their brewery business, and in 1882 commenced the manufacture of aerated waters, but did not use the mark on the labels for waters after 1888. They used the mark on price-lists, cards, and letter-paper dealing with their whole business, including aerated waters. In 1888, Mr. J. T. Verity, the predecessor in title of J. T. Verity & Co., registered a pictorial representation of a badger as a trade mark for goods in Class 44 (mineral and aerated waters, natural and artificial, including ginger-beer), and it had been used ever since in labels. In 1901 the applicants registered their trade mark for goods in Class 43 (fermented liquors and spirits), and sought also to register the same mark for goods in Class 44, but the Comptroller stopped the registration on the ground that the respondent's trade mark was already on the register.

Mr. Justice Buckley refused to take the respondents' mark off the register, or to direct the Comptroller to proceed with the registration of the applicants' mark in Class 44, and in the course of his judgment said that if placing a mark on the back of the price-list were sufficient to constitute a user upon or in connection with aerated waters, then a trader who circulates a price-list offering the great variety of goods which the stores and large retail dealers now commonly supply, and who puts a mark on the outside of his price-list, would be able to set up that he was using the mark in connection with each one of the numerous classes of goods offered within.

TREATT v. SAMUELSON.

IN the Chancery Division of the High Court of Justice, on December 20, Mr. Justice Joyce in this case had before him a motion on behalf of the plaintiff for the appointment of a receiver and manager of his partnership with the defendant, the business carried on by them being that of essential-oil merchants. Mr. Hughes, K.C., for the plaintiff, stated that Mr. Samuelson had been in the employ of Mr. R. C. Treatt for thirteen or fourteen years, and on August 22, 1900, articles of partnership for fourteen years were entered into. Mr. Samuelson was guaranteed 400*l.* a year for three years. Plaintiff said it was arranged that defendant's drawings were not to exceed 33*l.* 6*s.* 8*d.* per month. It was found on making up the first year's accounts that the defendant had drawn 975*l.*; and on plaintiff remonstrating, defendant on April 16, 1901, agreed to give plaintiff a policy on his life for 800*l.* as security, and agreed that his drawings should not exceed 8*l.* a week till the end of the year. Samuelson signed a memorandum to that effect, but, notwithstanding that, his drawings had averaged 96*l.* a month. Plaintiff asked that in the circumstances he should be appointed receiver and manager. Defendant denied the accuracy of the figures.

Mr. Justice Joyce said it was a case for a speedy trial, and he would hear it on January 14.

Sale of Food and Drugs Acts.

OIL OF ALMONDS.

AT Swindon Police Court, on December 23, C. W. Powell, chemist, Cricklade Road, Gorse Hill, Swindon, was summoned by the County Council Inspector for selling defective oil of almonds. The inspector purchased 6 oz. of oil of almonds, and sent a sample to Dr. Bernard Dyer, county analyst, who certified that it was made not from almonds, but from apricot and peach kernels. Oil of almonds was, he said, used as a laxative for children, but the oil sold by the defendant would be useless for that

purpose. The defendant stated that he had always been taught to sell this stuff as oil of almonds, but he would give an undertaking to sell only the genuine article in future. A fine of 2*s.* 6*d.*, with 17*s.* 6*d.* costs, was inflicted.

SWEET SPIRIT OF NITRE.

AT the Skipton Petty Sessions, on December 21, William Daggett, grocer, of Skipton, was summoned for selling sweet spirit of nitre which had been certified by the analyst to contain only 0.98 per cent. of ethyl nitrite, or about four-sevenths of the B.P. minimum. Mr. W. Turner, solicitor, Keighley, who appeared for the defendant, in cross-examination of the inspector elicited that the spirit evaporates.

William Fowlds, chemist and druggist, Keighley, who was called for the defence, said he had been in business for eleven years, and during that time had purchased a large amount of sweet spirit of nitre. He received the bottle of nitre from the wholesale people on May 24 last, and sold it to the defendant some time in August. The bottle would be about half full when he sold it, and would be quite up to the required standard of strength. Certainly it had not been tampered with. The nitre would evaporate by the bottle being constantly opened.

The Chairman (Captain Preston): It all depends upon the exposure to the air.

Witness affirmed that the spirit would evaporate even while the bottle was sealed.

The Rev. L. B. Morris (from the Bench): But we are not trying the wholesale dealer.

Mr. Turner replied that he was simply trying to show the Bench that this spirit lost its strength by being kept.

The Chairman: As I have said before, these small grocers had better not sell this sort of thing.

The defendant was called, and spoke to purchasing the nitre from the last witness about August 14 last. He had sold it chiefly in small quantities. It had not been tampered with. He knew, however, that nitre lost strength by being kept.

The Chairman: Forty shillings and costs.

Mr. Turner pointed out that he had not closed his case. He wished to address the Bench.

The Inspector remarked that Mr. Turner should have addressed the Bench in the ordinary way before calling his witnesses.

The Chairman said Mr. Turner could speak if he liked, but he did not think it would alter the decision of the Magistrates.

Mr. Turner urged that in view of the fact that the nitre had not been tampered with, but had lost its strength by evaporation, the Bench would be justified in dismissing the case.

The Chairman: If we had to take any notice of that argument, a grocer might keep spirit of nitre for twenty years, by which time it would be utterly useless.

Mr. Turner: That could not be helped.

The Chairman: We must abide by the law. The defendant should get the nitre weekly from the wholesale dealer.

Mr. Turner: That would be impossible.

The Chairman: Then he had better not sell it at all.

Mr. Turner pleaded that if the Bench could not see their way to dismiss the case they should impose a mitigated penalty.

The Chairman: The penalty of 40*s.* and costs which we impose is mitigated, because the maximum penalty is 20*l.*

Bankruptcy Report.

Re GEO. PATRICK, Thornley, Durham, Chemist and Druggist. —At Durham County Court on December 17, this debtor applied to Judge O'Connor for his discharge. Mr. J. A. Longden (Official Receiver) reported that a receiving-order was made on February 29, 1892, on debtor's own petition. The liabilities were 429*l.* 16*s.* 8*d.*, and the assets had realised 64*l.* 4*s.* 2*d.*. The balance available for costs and for distribution among unsecured creditors was 54*l.* 19*s.* 7*d.*, and a first and final dividend of 3*s.* in the pound was paid on proofs of 164*l.* 1*s.* 7*d.*. Bankrupt had carried on business in three shops in succession, in Hartlepool, Wingate, and Thornley. He began business with 110*l.* of bor-

rowed capital, and was aware of his insolvency three years before he signed his petition. The Judge: Have you been keeping your chin above water lately? Mr. Patrick: I have tried to pay my way. The Judge: I cannot discharge you immediately, because there is not sufficient to pay 10s. in the pound, and owing to you having traded after you were aware of your insolvent condition. Your discharge will be suspended for two years.

Gazette.

Partnership Dissolved.

Ashton, W., and J. Felpts, Bedford, aerated-water manufacturers.

The Bankruptcy Acts, 1883 and 1890.

RECEIVING ORDERS.

Cook & Co., Manningtree, mineral-water manufacturers.

Crickett, Henry Halkett, late Merstham, surgeon.

Emmett, Simeon, Bradford, formerly mineral-water manufacturer, now mineral-water manufacturer's assistant.

Fewster, William Longwood, Dewsbury, chemist and druggist.

ADJUDICATIONS.

Cook, William, and Hazell, Frederick William (trading as Cook & Co.), Manningtree, Essex, mineral-water manufacturers.

Garrett, Thomas Philip (trading as Garrett Brothers), Newport, Monmouthshire, chemist and druggist.

Knapp, Edward Molineux, late Ross, Herefordshire, now Sydenham Road, Croydon, S.W., medical practitioner.

ORDERS MADE ON APPLICATIONS FOR DISCHARGE.

Ashworth, John Robert, Heywood, late Hyde, chemist's assistant—discharge suspended for two years, ending November 21, 1903.

White, William Stokse, Manchester, chemist's assistant—discharge suspended for two years, ending October 23, 1903.

Deeds of Arrangement.

Holgate, Sam Verity, 2 Greyhound Street, Briar Street, and Peveril Drive, The Park, late 29 Long Row and 3 Addison Street, all Nottingham, chemist, druggist, and mineral-water manufacturer. Trustee, Wm. B. Winnicott, Fletcher Gate, Nottingham, I.A. Dated, December 14; filed, December 18. Secured creditors, 95%; liabilities unsecured, 772*l.* 7*s.* 1*d.*; estimated net assets, 1,402*l.* 19*s.* Among the creditors are:—

	£	s.	d.
Boord & Co., London ...	11	0	0
Cantrill & Co., Belfast ...	30	0	0
Edwards, W., & Son, London ...	22	0	0
Harrington Brothers, London ...	24	0	0
Maw, Son & Sons, London ...	15	0	0
Schwepes (Limited), Hendon ...	60	0	0
York Glass Company, York ...	16	0	0

Jipson, Herbert, 71 Broadway, Roath, Cardiff, drug-dealer. Trustees, Wm. Powell, 19 Duke Street, Cardiff. Dated, December 13; filed, December 17. Liabilities unsecured, 331*l.* 18*s.* 1*d.*; estimated net assets, 220*l.* The creditors include:—

	£	s.	d.
Burgoyne & Co., London ...	57	0	0
Lloyd, Howard, & Co., Leicester ...	10	0	0
Veno Drug Company, Manchester ...	10	0	0

Meadmore, Jabez, 329 Barking Road, East Ham, drug and chemical vendor. Trustee, Wm. H. Goodwin, 24 Coleman Street, E.C., chartered accountant. Dated, December 13; filed, December 19. Liabilities unsecured, 69*l.* 2*s.* 6*d.*; estimated net assets, 150*l.* The following are scheduled as creditors:—

	£	s.	d.
Burgoyne, Burbidges & Co., London ...	35	0	0
Ford, H., London ...	10	0	0

Sanders, William Josiah, 47 Queen Street, and 39 Oakfields Street, Cardiff, chemist and druggist. Trustee, Richard P. Kernick, 85 Bridge Street, Cardiff, accountant. Dated, December 11; filed, December 17. Liabilities unsecured, 1,028*l.* 4*s.* 1*d.*; estimated net assets, 401*l.* 9*s.* 10*d.* Among the creditors are:—

	£	s.	d.
Barron, Harveys & Co., London ...	17	0	0
Cook, E., & Co., London ...	11	0	0
Eucryl (Limited), Hull ...	22	0	0
Koko-Maricopas Company (Limited), London ...	10	0	0
Meggesson & Co. (Limited), London ...	11	0	0
Quelch, H., London ...	20	0	0
Himmel Eugene (Limited), London ...	38	0	0
Bankers' claims ...	223	0	0

New Companies & Company News.

VALITA COMPANY (LIMITED).—Capital 1,000*l.*, in 1*l.* shares. Objects: To carry on the business of manufacturing perfumers, drysalts, sundriesmen, manufacturers of, and dealers in, novelties for sale by chemists, stationers, and drapers, &c. The first subscribers are:—G. B. Small, 64 Clarendon Street, Clarendon Square, N.W., accountant; H. S. Arnold, 147 Blackfriars Road, S.E., traveller; Mrs. J. Small, 64 Clarendon Street, Clarendon Square, N.W.; F. G. Ford, 2 Arthur Street, New Oxford Street, W.C., warehouseman; Ada Ford, 2 Field Place, St. John Street Road, Clerkenwell, E.C., machinist; C. J. Dumbleton, 118 St. Paul's Road, Camden Town, N.W., clerk; and Mrs. E. Dumbleton, 118 St. Paul's Road, Camden Town, N.W. No initial public issue. Registered without Articles of Association. The first directors are G. B. Small and J. Evans. Registered office, 64 Clarendon Square, N.W.

SHIRLEY BROTHERS (LIMITED).—Capital 30,000*l.*, in 1*l.* shares (4,500 preference). Objects: To acquire the business carried on at Whitecross Works, 4 and 4A Rockingham Street, Newington Causeway, S.E., as "Shirley Brothers," to adopt an agreement with A. W. Shirley and S. S. Shirley, and to carry on the business of chemists, botanic and homeopathic chemists, druggists, drysalts, druggists' sundriesmen, oil and colour men, hottle-makers, confectioners, makers of photographic, surgical, and scientific apparatus and materials, mineral-water manufacturers, and dealers in grocers' sundries, soups, broths, invalid and other foods, soaps, soap-powders, &c. The first subscribers are:—T. Adams, Sunnysdale, Lee, Kent, chairman and managing director of Ray & Son (Limited); E. O. French, Hertford House, Coventry, merchant; R. A. Goodman, Broad Street House, E.C., C.A.; F. H. Adams, 76 Great Portland Street, secretary and manager of Ray & Son (Limited); S. A. Adams, "Sunnysdale," The Avenue, Lee, Kent, solicitor; H. B. Cooper, 31 Shelgate, S.W., traveller; and E. J. Jeffery, 94 Shakespeare Road, Herne Hill, S.E., book-keeper. Minimum cash subscription, 4,500 shares. The directors are T. Adams and E. O. French. Qualification, 250 shares. Remuneration, 50*l.* each per annum. Registered office, Whitecross Works, Rockingham Street, S.E.

PARKE'S DRUG-STORES (LIMITED).—The report of the directors, which is to be submitted to the shareholders at the meeting on December 30, states that stores have during the year been opened at Streatham and Muswell Hill, and Mr. C. W. Brumwell's business in Holland Park Avenue has been purchased. The company has also acquired the premises 18 Shepherd's Bush Green, W., which are to be opened next month. The accounts show profit on trading, 660*l.* 10*s.* 11*d.*, and 545*l.* 8*s.* 6*d.* as interest on investments. The management expenses and directors' fees take up 2263*l.* 12*s.* 4*d.*, and repairs and renewals, leaving 4,173*l.* 16*s.* 11*d.* to be distributed amongst the shareholders or otherwise disposed of. The shareholders have received interim dividends amounting to 1,751*l.* 11*s.*, and 587*l.* 18*s.* 9*d.* has been placed to the fixture, depreciation, and reserve fund. After paying another dividend of 3 per cent. (as noted last week) 42*l.* 13*s.* 8*d.* remains to carry forward. The subscribed capital of the company is 61,935*l.*, the reserve funds amount to 7,198*l.* 1*s.* 10*d.*, and the amount due to creditors is 11,408*l.* 2*s.* 3*d.* Against this are put the following assets:—Goodwill, 12,150*l.* 12*s.* 3*d.*; leases, 10,585*l.* 11*s.* 1*d.*; sundry debtors and debit balances, 1,955*l.* 2*s.* 4*d.*; cash, 3,378*l.* 13*s.* 9*d.*; stock-in-trade, 27,195*l.* 16*s.* 9*d.*; plant, fixtures, and fittings at head office, laboratory, and twenty-seven branches, 26,886*l.* 15*s.* 11*d.*; and preliminary expenses incurred in connection with the opening of new stores, 222*l.* 19*s.* 2*d.*

Birth.

JOHNSTON.—At Beaufort, West Cape Colony, on November 26, the wife of Mr. James Johnston, of a daughter.

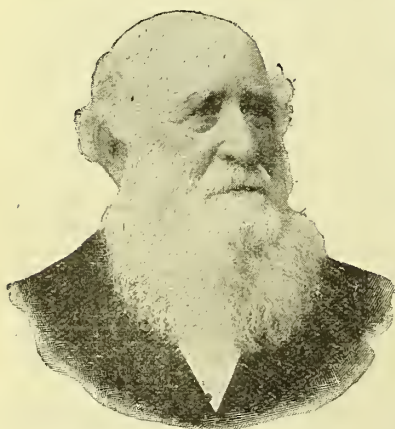
Marriage.

SMITH—PILLANS.—At Windsor Hotel, Glasgow, on December 20, by the Rev. Robert Primrose, of Burnbank, U. F. Church (cousin of the bridegroom), assisted by the Rev. Gavin Mason, Parish Church, Sandbank, Henry Ewing Smith, F.C.S. (of Messrs. T. & H. Smith & Co., Edinburgh, London, and Glasgow), elder son of the late Mr. Peter Shanklie Smith, to Lizzie Henderson Cadzow, third daughter of Mr. Alexander Pillans, J.P., C.C., Carluke, N.B.

Deaths.

DOBBIN.—At Belfast, on December 22, Mr. William Dobbin, J.P., chemist and druggist. Aged 84. Mr. Dobbin had been in business in Belfast as a wholesale druggist for nearly sixty years, and was one of the merchant princes of Ulster. The late Mr. Dobbin started business about 1842, at 18 North Street, with his brothers, Mr. John Dobbin (who died two or three years afterwards), and Mr. Leonard Dobbin, who subsequently went to Cork. About 1849 the brothers, William and Leonard, dissolved partnership, the latter continuing the business at 18 and 20 North Street, and the former commencing business at the corner of Long Lane, in premises which had been known as Cunningham's Hotel. Mr. William Dobbin was recognised as the father of the drug-trade in Ireland, and he was certainly the pioneer of the trade as it is known throughout the province of Ulster. Mr. Dobbin was for a time a member of the Belfast Corporation. He celebrated his golden wedding this year, and is survived by Mrs. Dobbin and two sons, one of whom is Dr. Leonard Dobbin, lecturer on chemistry at the Edinburgh University, and a member of the Pharmaceutical Board of Examiners for Scotland.

GILBERT.—At Harpenden, Herts, on December 23, Sir Joseph Henry Gilbert, F.R.S., F.C.S., F.L.S., Ph.D. (Giessen), M.A. (Oxon), Sc D. (Cantab), LL.D. (Edin. & Glas.). Aged 84. The veteran agricultural chemist and co-pioneer with the late Sir J. B. Lawes of scientific farming in this country, was the son of the Rev. Joseph Gilbert, Hull. He began his



studies in chemistry under Professor Thomas Thomson at Glasgow University, then came to London to continue his work in the University College, with Professor Thomas Graham. He also worked in Dr. Anthony Todd Thomson's laboratory, and it was there that he met John Bennet Lawes. Next he went to Giessen, where Liebig was, and he and Lyon Playfair gradu-

ated together as Ph.D. On his return to London in 1840-41, he became a demonstrator to Dr. A. T. Thomson at University College, and afterwards for a short time he worked at the chemistry of calico-printing in Manchester, but in 1843 the association of Lawes and Gilbert co menced,

which has had such momentous results upon agriculture, and has added so greatly to our knowledge of agricultural chemistry that new workers in the field seem to carry us no further. This work was recognised by the late Queen Victoria in the bestowal of a baronetcy upon Mr. Lawes, while Dr. Gilbert was knighted in 1893 on the occasion of the jubilee of the Rothamsted experiments. It will be remembered that the manufacture of calomel was attempted by the two young chemists, and that Sir J. B. Lawes's name is associated with the manufacture of citric and tartaric acids, as well as agricultural and sanitary chemicals (see *C. & D.*, September 8, 1900, page 40). Dr. Gilbert was one of the earliest Fellows of the Chemical Society, and in 1860 he was elected a Fellow of the Royal Society. The titles which we append to his name showed that British seats of learning recognised his powers. He was President of the Chemical Society in 1882-84, and Sibthorpe Professor of Rural Economy at Oxford 1884-90. Sir Henry Gilbert was a man of strong will and indomitable perseverance, and he had a bluff heartiness about him which made him a most kindly host. Sir Henry was first taken ill in August last at Strathpeffer, Scotland, where he had gone for his summer's holiday, being taken by a severe attack of hæmorrhage, followed by nervous exhaustion and neuralgia of the stomach. He was twice married, first to Miss Laurie, daughter of Dr. Laurie, in 1850, who died in 1852, and afterwards to Miss Smith, the present Lady Gilbert, in 1853. He leaves no issue. The funeral took place at Harpenden on Friday, December 27.

GREEFF.—On December 20, at "Elm Bank," Bromley, Kent, Charles Ernest Robert, the elder son of Mr. Robert William Greeff, Eastcheap, E.C. Aged 9 years, 4 months.

HAVELL.—On December 11, Mr. Charles John Havell chemist and druggist, Green Street, Ryde, Isle of Wight. Aged 70.

MADAN.—On December 22, at Bearland House, Gloucester, Mr. Henry George Madan, M.A., F.C.S., Senior Fellow of Queen's Coll. Oxford, and formerly Assistant Master at Eton College. Aged 63. Mr. Madan had been a Fellow of the Chemical Society since 1862, and had made communications to the Society. He was joint author with Mr. Vernon Harcourt of "Exercises in Practical Chemistry," and edited Wilson's "Inorganic Chemistry," which was a favourite text-book five-and-twenty years ago.

MOWATT.—On December 19, Mr. John Rodman Mowatt, pharmaceutical chemist, 109 High Street, Cheltenham. Mr. Mowatt had been unwell for many months, but was out a few days before his death.

NEWITT.—On December 16, Mr. Herbert Henry Newitt, chemist and druggist, Long Buckby, Northants, after a long illness. Aged 49. He leaves a widow and three children.

READE.—On December 13, Mr. John Edmonds Reade, chemist and druggist, Audlem. Aged 43.

RICHARDS.—At Farnham, Surrey, on December 22, Mr. Frederick Richards. Aged 26. Deceased was born at Perzance, and was apprenticed to Mr. J. H. Bibbings, of Newton Abbot. Since then, and up to September, he was with Mr. Perks, of Hitchin and Sloane Square, London. He had been studying hard for the Minor examination for some time when suddenly he was attacked with hæmorrhage of the lungs, and he gradually succumbed.

ROGERS.—On December 18, Mr. William John Rogers, chemist and druggist, 70 Bell Road, Seacombe. The deceased gentleman left his home in the afternoon of December 18, for the purpose of purchasing some tobacco, and nothing more was seen of him until the discovery of his lifeless body in the cellar of the Nelson Hotel, Egremont, later in the day, with his neck dislocated. At the inquest a verdict of accidental death was returned.

SWINDLE.—On December 4, Mr. Norman Vickers Swindle, chemist and druggist, Keswick. Aged 44.

SOLUTIONS OF MERCUROL.—As Mercuriol is an organic compound its solutions are prone to decomposition. Messrs. Parke, Davis & Co., the makers say the addition of 2 grs. boric acid to each fluid ounce will preserve solutions for a number of days.

Trade Notes.

A BROWNIE EXHIBITION.—Messrs. Kodak (Limited), 43 Clerkenwell Road, E.C., have organised a show of work done with Brownie cameras, at 59 Brompton Road, Knightsbridge, W. The competitors are none of them over 16 years of age. Admission to the exhibition is free.

A NEW ANTI-CUTTING AGREEMENT.—From January 1, 1902, Messrs. Allen & Hanburys (Limited), Bethnal Green, E., start a new scheme of price-protection for their specialities. It may be remembered that in March, 1895, the company inaugurated a scheme fixing minimum prices, and this has worked so well that they now feel that they can carry it a little further. They have accordingly secured the co-operation of the leading wholesalers to an agreement in which the conditions of sale applicable to retailers and wholesalers equally are as follows:—

Allen & Hanburys (Limited) hereby give notice that their specialities are sold by them subject to the following conditions, which the purchaser will be deemed to have accepted:—

(1) That none of the said goods shall under any circumstances be sold by retail to members of the public at prices below those specified in such list as the minimum-retail prices for such specialities respectively.

(2) That the purchaser shall not re-sell any of the said specialities to any other dealer, without binding the said dealer by a similar condition, that he in his turn will not sell, or permit, or cause to be sold by retail, any of the said specialities to members of the public at prices below the said minimum-retail prices.

These terms have been drafted by an eminent counsel, and are legally valid without signing any agreement, as the terms will appear on all the invoices covering Messrs. Allen & Hanburys' specialities. In a conversation with the company's representative we learnt that they by no means desire that the prices of their goods should be cut even to the minimum that is fixed, and they are to especially emphasise this in a letter addressed to the trade, and they solicit the co-operation of retailers to protect the prices and to stop any cutting. From the price-list, of which we have seen a draft, we find that all the minimum prices have been raised, except those for 2s. bynol, 1s. and 2s. 6d. capsules, 1s. 9d. and 3s. castor oil, 6s. and 1s. 1½d. vapo-cresolene, "Allenburys" jujubes and pastilles, the milk-foods, 1s. and 10s. malted-foods and tablets. The following gives some idea of the extent of the advances: 1s. 9d. bynin is now to be sold at not less than 1s. 6d.; 2s. 6d. bynin amara at 2s. 3d.; and other 2s. 6d. preparations similarly. The 1s. 4d. "perfected" cod-liver oil is to sell at not less than 1s. 1d., and the 2s. 6d., 2s. We ought to mention that the firm have added eighteen articles to the minimum-prices list, amongst them the "Allenburys" feeder, which is to be sold at not less than 1s. 2d. Some of the firm's soaps and toilet-preparations are also included. Those of our subscribers at home who do not receive the company's wholesale price-list should drop them a card for a copy of it.

Personalities.

MR. HENRY CARTER, chemist and druggist, 109 Fentiman Road, Clapham Road, S.W., was a successful candidate at the recent Spectacle-makers' examination.

ALDERMAN J. J. SHAWYER, chemist and druggist, of Wood Street and Faringdon Street, Swindon, has been appointed Chairman of the Corporation Committee, which has been entrusted with the work of carrying out the projected scheme of electric lighting and tramways for the borough.

MR. A. H. COX, J.P., of the firm of Messrs. Cox & Sons, pill manufacturers, Brighton, on his retirement from the Town Council, was, on December 19, presented by the Corporation with an illuminated address in recognition of his services to the town. The Mayor (Alderman J. E. Stafford, J.P.), remarked that Mr. Cox was one of the ablest men of his time, and that he was giving up something considerable in foregoing the title of Alderman of the Borough.

MR. HENRY COLLIER, F.C.S., who recently, owing to ill-health, retired from the position which he long held as senior dispenser at Guy's Hospital, was on December 16 presented by the hospital staff with a solid-silver tray, tea-and-coffee set, hot-water jug, and pair of candlesticks, also an illuminated address signed by the present and late Treasurers, the consulting and acting staff, and practically all the officials of the hospital. We quote the following from the address:—

During the twenty-seven years you have been amongst us we have a pleasing remembrance of having received at your hands much courtesy, willing help, and kind consideration, and we earnestly trust that, relieved from the strain of work in the highly responsible position you have held here, you may regain in a large measure health and strength to enable you to pass many years of quiet enjoyment with your family.

We are gratified to know that the Governors have recognised your faithful services by granting you a pension on the higher scale, and we would ask you to accept as a slight mark of our own high regard the accompanying gift of silver plate.

Business Changes.

MR. D. GEORGE has taken over the business of the late Mr. T. P. Owen, chemist, Pentre, South Wales.

MR. E. ORLANDO TIMS, chemist and druggist, late manager to Messrs. Smith & Son, Royal Leamington Spa, has taken over the London Road Pharmacy, at Alderley Edge.

ILFRACOMBE is not yet to share the boons and blessings which Messrs. Boots (Limited) bestow upon mankind. The rumour about the company ("Western," we suppose) starting there, to which we referred last week, is incorrect.

Festivities.

ASSISTANTS' SOCIAL.

The Chemists' Assistants' Association held a "musical and social evening," at 73 Newman Street, W., on December 19. Mr. C. J. Strother (the Hon. Treasurer) presided, and Messrs. Victor Blin, H. B. Everson, D. C. Jones, A. Latreille, C. Morley, F. Pill, and G. Pownall were down on the programme for songs. Messrs. A. R. Burton and E. J. Everson rendered violin and flute solos, while Mr. R. E. Lownsbrough added to the gaiety of the evening with some excellent recitations. The musical accompaniment was supplied by Mr. H. S. Coupland. The Chairman urged the claims of the Benevolent Fund of the Pharmaceutical Society upon the generosity of those present, and a collection was made towards the fund in question. At the close of the evening the President (Mr. J. W. Peck) reviewed the work of the first half of the present session, just ended, drawing attention to the improved attendance and the greater interest taken in the proceedings. The weekly meetings will be resumed on January 9 with another social evening.

LIVERPOOL SCHOOL OF PHARMACY.

A very enjoyable smoking-concert was given by the students of the above school on December 20. Mr. Rymer Young, of Warrington, occupied the chair. There were also present Dr. Symes, Mr. R. C. Cowley (Principal), Mr. J. P. Catford (Demonstrator), and a representative gathering of those interested in pharmacy in Liverpool and district. The meeting was made the occasion for a presentation by the present students to Mr. R. C. Cowley of a very handsome silver cigarette-case, and to Mr. J. P. Catford of a case of silver-mounted pipes. Amongst those who contributed to the evening's enjoyment were Messrs. Bonnar, Crofts, Campbell, Evans, Gough, Hill, Oliver, Scott, and Sedgewick. The Chairman and Dr. Symes spoke a few words of advice to the students, the concert being brought to a close by a vote of thanks to the Chairman and the artistes, and the singing of the National Anthem.

Hints and Verses.

POSTCARD A from our 1902 DIARY coupon is very productive. We reckon that we shall have some trouble with the guineas which have been allotted to this competition; but there are more where they come from, so that those who have not yet filled in Postcard A need not hesitate to write. All cards posted in the United Kingdom up to and including December 31, 1901, will be admissible. The subjoined give an idea of what we are receiving. They are selected from last Saturday's post-basket. We would also remind subscribers of Postcard B, which is for answers to the advertisement-questions. We should like if those who participate in this do the answering in such a way that we can give five of the ten guineas as a first prize. Please post the cards by December 31.

If Marconi is able,
Without wire or cable,
To bridge the Atlantic entirely,
There's no shadow of doubt
Of his failure, without
He used the *C. & D. DIARY*.

—JOHN F. SHACKLETON (Bury-St.-Edmunds).

SHOP HINT.—Be punctual, cleanly, courteous, obliging, honest to customers and to self.—JAMES E. SCHOFIELD (Newchurch near Manchester).

Pears' for the dirty lad having a scrub,
Pears' for the baby in his wee bath-tub,
Pears' for the soldier-boy brushing up his hair,
Pears' for the laddie blowing bubbles in the air,
Pears' for the King and Queen on the high throne,
For in Pears' it appears that Britain holds her own.

—E. H. TURNBULL (Amble).

SHOP HINT.—Not to change their assistants so frequently. People like to see the old faces best.—L. CASELY (Balham, S.W.).

DIARY, page 34.
'Tis hoped those pyramids of stone,
With steps unsoaped for countless years,
Will ne'er from base to summit groan
With the gigantic "ads." of Pears'.

—RAMESES.

SHOP HINT.—Often quoted; as often forgotten:—"A place for everything, and everything in its place." "Be civil and obliging to all; it costs nothing, and is worth much." "Never be idle; there is always something wants doing. If nothing turns up, turn something up."—C. CYRIL WESTLAKE (Windsor).

If upon your desk you'll keep it,
Information is at hand.
As for money—you will reap it,
And a bankrupt never land.

—E. J. SHARP (Melton Mowbray).

SHOP HINT.—Make a point of having striking and large show-cards in your window.—J. A. COLTART (Oxford).

[After "Daisy Bell."]

Poor Daisy, Daisy,
Her head is so crazy,
She don't know what to do;
For a headache-powder
Is all allowed her
To paddle her own canoe.

—ALFRED JONES (Southend-on-Sea).

SHOP HINT.—Have the DIARY always handy.—J. F. MARLAR (Colchester).

Some oxen there were, which stood in a row,
And each one gave a piteous low,
For into a cauldron they all must go,
And there be condensed into pure "Lemco."

—C. B. THACKER (Hadleigh).

SHOP HINT.—Every time you ask the Editor for a recipe send him one of your own that you find go well.—FARKEM.

"Use Pears' soap," the people cry;
"We do, and shall until we die."
The little black niggers shout with delight,
"We'll use Pears' soap if it'll turn us white."

—Mrs. BROOK (Whitefield).

"C. & D." Nursery Rhymes.



A Republican King.

WHEN Good King Brent espied our land
He looked on field and river,
And thought them fair; but grasped the hand
Of man with sluggish liver.

So, pitying mortals sorely tried,
He quickly ships did charter;
And cargoes came with every tide,
Weighed down with pills of Carter.

In Holborn found they resting place,
But soon the country over
Was marked, each mile and railway-pace
Was gauged from Dyce to Dover.

The pills were landed to the clouds
(No ill they'd fail to fathom);
So universal 'twas, that crowds
Of Crows would even caw them.

Coming Events.

Notices of forthcoming meetings are inserted in this section free of charge. Secretaries should send such notices to the Editor of "The Chemist and Druggist," 42 Cannon Street, London, E.C., so that they may be received not later than Wednesday of the week of publication; if later, by telegram to "Chemicus London."

Saturday, December 28.

Royal Institution of Great Britain, Albemarle Street, Piccadilly, W., at 3 p.m. First lecture of a series on "Waves and Ripples in Water, Air, and Ether," by Professor J. A. Fleming.

Thursday, January 2.

Röntgen Society, 20 Hanover Square, W., at 8 p.m. Mr. C. E. S. Phillips, on "The Function of an Auxiliary Electrode in X-ray Bulbs," and Mr. P. H. Marsden on "Radiography Applied to Dental Surgery."

THE annual dinner of the London College of Chemistry will be held in the Venetian Chamber, Holborn Restaurant, on January 29. Mr. Percy M. Thornton, M.P., will take the chair and present the prizes.

THE Chemists' Ball is to take place at the Whiteball Rooms, Hotel Métropole, London, on January 15. Tickets can be obtained from Mr. E. W. Hill, 160 Earl's Court Road, S.W.

Observations and Reflections.

By XRAYSER.

The Scottish Branch

of the Pharmaceutical Society has been at times a rather troublesome handful to its old parent, and probably will continue to cause anxiety occasionally as long as the thistle grows. But Jubilee time is not an appropriate moment for scratching old sores or for starting new ones. Here is even Mr. Carteighe, whose name, they say, has been used to frighten naughty Scotch drug-babies, as Marlborough's name was once employed by French nurses, preaching a "cordial alliance." We all know how vigorously he has himself worked to secure that result—how he always sought to promote peace and good will between the Branch and the Society when he was President—and this reputation justifies him in calling upon the new generation to come forward and manifest their intellectual power and prowess now. Perhaps they had better be warned, however, that that power and prowess may only be exercised in directions approved at Bloomsbury. Revolutionary ideas, even from Scotland, will be either ignored or suppressed.

But this Scottish Apathy,

which seems to alarm Mr. Carteighe, is not so very apparent to less acute observers. I note that Scotland contributes one-ninth of the guineas which the Pharmaceutical Society spends. I should fancy that a full ninth of the expenditure of the Society which can be called special is devoted to Scotland, and surely rather more than a ninth of the criticisms, counsels, complaints, and compliments heaped on the Pharmaceutical Society are of Caledonian origin. Pharmaceutically, at all events, it is difficult to realise that all Scotland (yes, even including Glasgow) contains a population considerably smaller than London; and when the London Chemists' Association gets to work we shall be able to compare the relative intellectual powers and prowesses. But London will have to change vastly before it comes near Scotland in intelligent interest in pharmaceutical affairs. But this is not to London's credit. All honour, I say, to men like Reid, and Paterson, and Glass, and Mackenzie, and Macpherson, and Henry, whose names are familiar in our journals and our discussions. They have views and express them, and we are all of us the better for knowing what other people think. But what is the basis for Mr. Carteighe's apparent theory, that pharmaceutical polemics are dying out in the North?

The Pharmacopœia

is not a standard under the Sale of Food and Drugs Act, but it is most weighty evidence, at all events as regards prepared medicines. This is a trite enough maxim, it was the principle of the decision in the *White v. Bywater* case (the most intelligent exposition of the Act as it relates to medicines), and I do not think it has been definitely set aside by the mercury-ointment case, though the Judges in that action certainly did set up the Pharmacopœia as at least a *prima-facie* standard. The importance of bearing in mind the distinction indicated is shown by two reports in last week's *C. & D.* At Edinburgh Mr. Dott read a paper on "The B.P. as a Standard," and easily proved that it was never intended to be such. Then, basing his remarks on this view, Mr. Rutherford Hill maintained that the vinegar, linseed-meal, camphorated-oil, and methylated soap-liniment cases in England "were an entire abuse of the Food and Drugs Acts." Mr. Dott adds boric-acid ointment to this category.

A Deficiency of 1 or 2 per cent.

of boric acid in the ointment, or of 10 or 20 per cent. of camphor in the oil, may be trivial, but the public has a right to expect something definite. If the Pharmacopœia formulas for these compounds are not to be adopted, the only alternative is that every vendor, whether he be chemist or huckster, is to give what he likes when they are asked for. The chemist who does his business conscientiously is as much concerned in preventing this conclusion being reached as are the purchasers. And now see where this contention lands us. A London drug-company sold some belladonna-liniment, labelling it "methylated," and explaining to the customer that it was not the B.P. article. The inspector seems to have argued that, the Pharmacopœia being a standard, it was an offence to supply any other belladonna-liniment than one made by its formula under any circumstances. The liniment purchased was certified to be 40 per cent. deficient in alkaloidal strength. For the defence it was cleverly argued that, this being outside the Pharmacopœia, the vendor might sell it of any strength he liked; and that view prevailed. I fancy that if the Magistrate had been permitted to realise that the B.P. is not an arbitrary standard, but that it is important evidence as to what the strength of belladonna-liniment ought to be, the result would have been different.

The Dictionary of National Biography,

the work recently apotheosised by the King, is certainly a wonderful monument of literary enterprise. It consists of some sixty well-filled volumes, in which are enshrined the records of all our national heroes, and of many thousands of saints, statesmen, soldiers, doctors, lawyers, scribblers, and others whose names are certainly not household words. Seeing in a literary magazine that the D.N.B. might be regarded as some sort of criterion of the distribution of talent, I took down some of its volumes to discover, if I could, what record pharmacy had made in the national annals. I am afraid it cannot be said to figure very prominently as yet. Pharmacy as a separate entity is only a recent profession, or it has not had a fair chance. No one can get into the Dictionary until after his death, but there is plenty of material accumulating in our ranks for its next edition.

Jacob Bell

gets a page and a half in the Dictionary. His claim to distinction is set forth as having been "founder of the Pharmaceutical Society, and patron of art." George Barnett Smith is the writer of his biography. William Allen's memoir is written by the editor, Leslie Stephen. It is principally devoted to an account of his philanthropic labours. His association with the Pharmaceutical Society is not mentioned. A too brief history—less than a column—of Daniel Hanbury, pharmacist, is given by B. D. Jackson. Hanbury's researches are said to have been "specially, though not exclusively, devoted to pharmaceutical subjects." A third member of the Plough Court firm, Joseph Gurney Bevan (1753-1814), has also been honoured with a place in this Valhalla. Bevan's life is sketched by James Mew, and it is interesting. He was the Quaker who first abandoned the use of the heathen names of the months. "He pursued his trade with integrity, justice, and truth, and retired from it in 1794 with a considerable diminution of capital," says his biographer. Not much of a recommendation for integrity, justice, and truth. The result, it is suggested, was partly due to his refusal, from conscientious motives, to supply armed vessels with drugs. But Bevan was not quite a Tolstoy. Being chosen a constable of his ward, "he faithfully fulfilled the duties of his office." After his retirement he occupied himself in writing on behalf of Quaker views, and Lowndes describes him as the ablest of the Quaker apologists. I hope to be allowed to add some other D.N.B. gleanings later on.

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Editorial Comments.

The New Year.

MAY it bring all happiness and prosperity to you. This is the good wish which will pass between millions of people in Christendom in a few days, for it is characteristic only of the Metropolitan area to ignore, more or less, the custom (old as communal man) to celebrate in some fashion an event in time which is common to all. To business men it is the time of stocktaking and balance-striking, but felicitations are not forgotten, and we are reminded by some proofs of announcements which the Publisher has handed to us that there are not a few firms in the trade who accord with the old custom. We join with them in wishing our subscribers and readers

A Prosperous
and

Happy New Year.

Pharmacy and the Drug-trade in 1901.

THE first year of a new century is, under all circumstances, remarkable, and to the British Empire the first of the twentieth must ever be memorable, owing to the death of Queen Victoria, after a reign unexampled in length and unique in its achievements. The national mourning which followed that event in January disturbed trade seriously, and the continuance of the Boer War in South Africa at a cost of 5,000,000*l.* a month, has diverted from more profitable channels a volume of labour and a wealth of capital which, devoted to the arts of peace, would have prevented the stagnation of trade characteristic of the year. The one offset has been the completion and celebration of the federation of the Australian colonies under the *agis* of George Prince of Wales and his consort, who extended their tour to other parts of the British dominions, to the benefit of that brotherly feeling which should subsist between all parts of a great Empire.

NATIONAL GOVERNMENT.

The labours of Parliament have resulted in little of direct advantage to pharmacy or any other of the callings which are based upon scientific acquirements. The Government brought forward no measure of great industrial importance, although the consolidation and amendment of the Acts relating to workshops and factories must be put down as a good accomplishment. Lord Avebury introduced into the House of Lords the Shops (Early-closing) Bill, which he, as Sir John Lubbock, had carried more than once in the Commons, and he succeeded in February in getting a Select Committee appointed, which took evidence on the subject. We addressed Chemists' Associations throughout the country on the matter, and their replies were so overwhelmingly in favour of the measure that the Pharmaceutical Council (London) deputed Mr. C. B. Allen, Vice-President, to give evidence, which he did in favour of the measure, and he was followed by the Editor of this journal. The Bill contained a clause which secured to the public the supply of medicines at all hours, and was a permissive measure. The Committee ultimately reported that the conditions under which retail shop-trading is carried on are inimical to health, and the first draft of the report supported the Bill; but the Marquis of Salisbury had this replaced by a recommendation to give local authorities power to regulate shop-hours. There the matter stands. The General Medical Council tried to get an amendment of the Medical Acts to modify the principles upon which colonial diplomas are recognised, but without success; and the Pharmaceutical Council produced a Pharmacy Bill in March, but to this we shall refer later. One of the Government measures which failed was a Bill to amend the Alkali Acts, providing new regulations for the amount of noxious gases dischargeable from works. The details of this were so strenuously opposed by alkali-manufacturers that the Bill had to be dropped at the end of the Session. Two Anti-Bribery Bills were introduced by the Lord Chancellor and the Lord Chief Justice in June, the latter being substantially the Bill drafted by Lord Russell of Killowen. Neither got further than the discussion stage. In the House of Commons Mr. Fletcher Moulton and others introduced a Bill drafted by the London Chamber of Commerce to amend the law relating to trade-marks, and this also has been temporarily shelved. Mr. Dobbs's Poison Bill has not yet reached Westminster, although in April there was a strong effort to get it introduced. It has, however, had one important issue—namely, the appointment by

the Privy Council of a Committee to consider the amendment of the poison schedule of the Pharmacy Act, 1868. This Committee is now taking evidence, and although Mr. William Martindale represents pharmacy upon it, and he has with him Dr. Tilden, Dr. T. E. Thorpe, and Dr. Thomas Stevenson, it appears probable that the evidence which has been given, by those who are in favour of an easier method of obtaining poisons than that prescribed by the Pharmacy Act, will prevail, so that the Government may be recommended to legislate in the matter, most probably on the lines suggested in the eighties by the Privy Council and recognised by the Pharmaceutical Council—viz., that a Part III. be added to the schedule, comprising articles of a poisonous nature which may be sold by anybody provided they are labelled "Poisonous" and with the name and address of the seller. This principle has already been recognised in the scheduling of carbolic acid, and it is futile to blink the fact that it is one which the permanent officers of the Privy Council wish to extend. The evidence called is distinctly weighted in that direction, and if the Committee recommends it the Privy Council will go to Parliament with a magnificent backing. This is a contingency which has to be faced in the year 1902.

A large part of the Parliamentary Session was devoted to the consideration of ways and means, there being a grievous deficit to meet. The Chancellor of the Exchequer proposed an addition of 2*d.* in the pound to the Income-tax, 4*s.* 2*d.* per cwt. as an import-duty on sugar, and corresponding amounts on other saccharine products or the artificial sweetener saccharin, besides an export-duty of 1*s.* a ton on coal. His proposals were adopted, and there has been in consequence some disturbance of the values of many articles employed by druggists.

Several inquiries have been instituted by the Government which have interested chemists—for example, the Arsenic Commission, charged to inquire into the presence of arsenic in foodstuffs and beverages. It has not yet reported, but one result of the evidence is the prohibition of the use of glucose containing arsenic in beer-brewing. The breakdown of the Army Medical Service called for thorough investigation, and a report was issued in January which has been followed by another, in which the appointment of an advisory medical board was recommended, as well as novel methods of promoting medical officers, with the view of insuring intimacy with the advances in medicine and surgery. It is much to be regretted that military pharmacy was not at the same time looked into, for the evidence of numerous correspondents, who have been at the front, shows the need of reform in that department, especially the appointment of pharmacists as officers to supervise the dispensing-service. Another report which has appeared refers to the use of colouring-matters and preservatives in foods and beverages. This we have quite recently dealt with, and need only recall the fact that it proposes to forbid the use of formaldehyde and to limit the amount of other preservatives. One matter of national interest which may be mentioned here is the Exhibition opened in Glasgow in April, for seven months, which was remarkable amongst things of that nature in being a complete financial success (the surplus was over a quarter of a million), besides having given endless pleasure and instruction to millions of people. Turning from national to

CLASS GOVERNMENT,

we may recall the fact that when the year opened the Council of the Pharmaceutical Society of Great Britain had

E—F

sent to a committee a Pharmacy Bill, whose special objects were to bring pharmacy companies more directly under control, and to ensure the supervision of each poison-shop by a registered chemist. The measure as drafted at the end of 1900 was simple, and was generally accepted by the trade, but it came from the committee a complicated and overloaded affair (thanks to the lawyers), for which there has been no enthusiasm, but semi-despairing acquiescence. The Council approached the Privy Council in regard to taking up the measure, and in November it was announced that, owing to the latter Council's poison inquiry and the likelihood that it will result in some amendment of the law, the Bill will not be proceeded with in the meantime. The Council of the Pharmaceutical Society of Ireland has also considered the company-question, Mr. Kelly having moved in it at the annual meeting—the principle which he laid down being the recognition of existing company-traders and the prevention of any more of the same kind; but that matter awaits the result of the Whitehall inquiry.

The year has not been particularly eventful for the British Society, but it has been occasionally exciting—in short, much cry and little wool. The principal business has been the carrying-out of the new scheme of provincial organisation, with local meetings in eight centres and London, beginning with Newcastle in February. They appear to have done the office-bearers good by bringing them into contact with their constituents. In March the Council found that it had been exceeding its Charter powers as a property-holder, and steps were taken to get a supplemental one, which was duly granted by the King, much to the satisfaction of all the legal gentlemen who participated in the matter. The contest for the seats on the Council commenced quite early, Mr. James Mackenzie, of Edinburgh coming into the field in March with a criticism of the Society's officers and interpretations of the Charter and by-laws, which he continued with spirit until the annual meeting. Mr. James Paterson, of Aberdeen, also entered the lists, his special plea being a consolidation of the Pharmacy Acts, in the course of which he dealt with pharmacy companies. His townsman—Mr. Johnston—was retiring from the Council, and Mr. J. B. Stephenson and Mr. David McLaren, of Edinburgh, were also nominated, besides seven candidates in England. Naturally the Scotch vote was divided, and Mr. R. Lord Gifford, of Blackburn, who had loomed large on the pharmaceutical horizon for some years, sailed clean into the vacant Council chair and suppression of activity. Practically, therefore, the Pharmaceutical Council is as it was at the beginning of the year, and little of its work has departed from the routine, although there has been a good deal of bickering. Thus Mr. Glyn-Jones, who has a neighbour who was fined under the Pharmacy Act in February for not putting his proper name on his poison-labels, tried by a motion in April to get his colleagues (some of whom sin in the same manner) to be consistent, but his motion was said to be "improper." With Celtic pertinacity he kept returning to the subject until August, and, failing in every attempt at the Square, resorted to the Press for the exposition of his views. It has been a pretty wrangle, and has served to reveal the petty autocracy which dominates some Square matters. The Scotch dispute, as the Strachan case was called, practically ended with the defeat of the Society in the Court of Session in the plea that a Minor candidate who has attended a part of an examination and not the rest must pay the failure-fee. The Council accepted that decision gracefully, and the amended by-laws which had been sent to the Privy Council for approval were withdrawn. There is little else in the Council record which calls for remark, except that Mr. E. Northway Butt has during the year instituted a substantial

scholarship for pure pharmaceutical research, and the President through the kindness of some members of the Society is now able to appear in public with an official decoration or badge—a memento of the Diamond Jubilee of the Society. The Society's affairs in Scotland are satisfactory, and the celebration last week of the fiftieth anniversary of the foundation of the Branch gave point to the prevalent calm.

There have been five evening meetings of the Society in London during the past twelve months, and the whole of the papers read have concerned articles of vegetable materia medica, and they indicate on the whole a better appreciation of the Society's duties in these matters than has been shown for some years. It is unnecessary to mention the papers in detail, but the fact may be noted that not a single retail pharmacist actually in business as such made a communication, all authors being either Society officials or wholesalers. At the North British Branch meetings, on the other hand, the papers were more numerous, and retail pharmacists as contributors were not altogether lacking.

EXAMINATIONS.

We have so recently dealt with pharmaceutical examinations in Great Britain (see *C. & D.*, October 26, page 692) that now we need only recall the fact that for the Qualifying certificate 1,468 candidates were examined and 483 passed, and in the Major examination 105, of whom 38 passed. There has been some progress in opinion regarding the division of the Minor examination, and the Pharmaceutical Council is practically pledged to see this carried out, but declines to move until a compulsory curriculum (provided in the Pharmacy Bill) is imposed. Outside opinion, however, in support of our contention for dividing the examination is growing, and has extended to Ireland and Queensland. We are hopeful that the coming year will show still further progress towards this desirable improvement of the examination, especially as the principle is already recognised in the Preliminary. Meanwhile a committee of the Council is considering the advisability of holding the examination twice a year. A scarcity of apprentices has been felt in pharmacy for some years, and we have had communications occasionally about the matter; but since August the scarcity has become so pressing that even pharmaceutical councillors recognise that it is not a mere journalistic cry. Inquiries which we have instituted show that not only are fewer apprentices coming into the trade, but of those who are, a comparatively small number have passed an examination entitling them to registration as students of pharmacy. As a matter of fact, only seventy persons have been registered as students this year, or about one-tenth of the number that there should be. We have expressed the view that the Pharmaceutical Society should again conduct a Preliminary examination of its own, and this appears in some quarters to have been regarded as equivalent to returning to the old examination, whereas it is simply a sane suggestion for averting a financial crisis and perpetuating in the public mind the existence of a Pharmaceutical Preliminary examination, which we consider is beneficial to pharmacy. We hold that the present tendency to enter the trade without passing the more severe examination will foster the increase of unqualified men in the trade. This would be a serious evil. If there were a true Pharmaceutical Preliminary examination it would at least be part of the work which apprentices and assistants have to do, and that would be a gain. The Medical Preliminary examination has also received much attention during the year; there was a great falling-off in the number of medical students within the Metropolitan

area consequent upon the non-recognition of two classes of College of Preceptors' certificates, and the General Medical Council, at its recent meeting, restored to the list the Special Medical Preliminary examination conducted by the College, which has been made somewhat more stringent. The gift by Mr. Andrew Carnegie of 2,000,000% to the Scotch Universities is giving an impetus to education in Scotland, which Mr. James Paterson, of Aberdeen, reflected in a paper read at the meeting of the Federation of Pharmaceutical Associations at Dublin on "State-aided Provincial Schools of Pharmacy." The subject is now being discussed by provincial associations. Mr. J. F. Tocher, of Peterhead, is also moving in regard to students of pharmacy benefiting fully under the Carnegie trust, which they can only do by matriculating at one or other of the universities; and, that step taken, it would be a logical conclusion for the students, after passing the Minor, to proceed to a degree in science at the universities in a pharmaceutical department co-ordinate with those of agriculture, biology, chemistry, engineering, and public health.

THE PHARMACEUTICAL SOCIETY OF IRELAND

has had a good year under the presidency of Mr. George D. Beggs. The candidates for the Preliminary and Pharmaceutical Licence examinations during the Council year were more numerous, and for the Registered Druggists' examination fewer, than in 1900. All the registers except that of chemists and druggists show substantially increased lists, and including pharmaceutical chemists there are this year 1,430 on the registers, as compared with 1,409 in 1900. The Society has under great difficulties enforced the provisions of the Pharmacy Act to which we shall refer later. The changes in the *personnel* of the Council during the year included the retirement of Mr. W. F. Wells, who has worked hard in the Society's interests for many years, and occupied the presidential chair with conspicuous ability.

THE PHARMACY ACTS.

It rarely happens that we have to record proceedings taken under the 1852 Act. There was, however, a case in April of a limited company which had purchased a business and was prosecuted under Section 12 for using their predecessor's labels, upon which was the title "Member of the Pharmaceutical Society." Judge Bacon, of the Bloomsbury Court, held, without deciding whether a company can be sued under the Act—although he thought the ruling of the House of Lords would apply—that as the name of the predecessor was still on the label, it could not be said that the company held themselves out as members of the Society. The most important decision of the year has been in the agency case, *Pharmaceutical Society v. White*, in which a seedsman had taken from a person an order for arsenical weed-killer which was transmitted to the manufacturer, who sent the poison to the purchaser, allowing the seedsman a commission on the transaction. The Worcester County Court Judge had held that there was no contract between the seedsman and the purchaser. Mr. Justice Grantham and Mr. Justice Channell confirmed this view in the Queen's Bench Divisional Court last year, and the Society's appeal against their decision was heard in the Court of Appeal by the Master of the Rolls (Sir A. L. Smith) and Lords Justices Collins and Romer on February 13 and 22. Mr. Danckwerts endeavoured to convince their Lordships that Section 17 of the 1868 Act should be read with Section 15 in order to show that the seedsman should have carried out the provisions of Section 17, and he also argued that in law an agent is the seller. Their Lordships were prompt in their judgment, and did not trouble about questions of law, because they had to adhere to the facts found by the County Court Judge, which were

to the effect that there had been no contract between the seedsman and the purchaser—a finding which the Court was incompetent to reverse. This decision complicates the administration of the law by throwing back liability in such transactions upon makers; but if the law in regard to wholesale dealing were more strictly enforced it would practically put an end to such trading.

In January the Pharmaceutical Society proceeded under Section 17 against Mr. C. C. Reece, who trades under the name of "Squire," for selling poison without labelling it properly. Mr. Reece did not put his own name on his poison-labels, and used only one address—Goodge Street—these labels serving for several shops. The Magistrate at the West London Police Court was of opinion that Mr. Reece complied with Section 17 so far as the address was concerned, but not in regard to the name. The case and decision were a complete surprise to the drug-trade, as several members of the Pharmaceutical Council who authorised the proceedings do not trade under their own names. Mr. Glyn-Jones is one of them, and he moved in the matter in what was regarded as an improper manner. The net result has been that we have learned that the instructions to proceed against Mr. Reece were merely on the address, not on the name at all. Apparently the judgment is not intended to be enforced further.

In Scotland the Sheriff-Substitute for Linlithgow fined a young man 2% and expenses, or in default of payment three days' imprisonment. The young man appealed, and the Justiciary Appeal Court in Edinburgh heard the case in March, sustaining the Sheriff's judgment, and basing the decision on Section 18 of the Summary Procedure (Scotland) Act, 1884. Similar proceedings were tried in Liverpool, and Judge Collier in one case imposed a fine of 5%, or three months' imprisonment; but within a month he changed his view of the matter, and held that imprisonment is contingent upon non-payment of the fine, and a fresh application is necessary for it. In fact, the imprisonment can only be one for non-payment of debt, and the debt is a liability subsequent to the decision under the Pharmacy Act. Many actions have been taken against unqualified assistants in chemists' and doctors' shops for selling poisons, but no special legal point is attached to any which have been decided this year. In two cases the owners of the doctors' shops have been prosecuted under Section 17 for improperly carrying out the provisions of that section. We refer to this matter later.

At Peterborough in March a chemist was fined under the Act for not entering a sale of a strychnine vermin-killer in the poisons-book, and at Stowmarket in June another chemist was similarly fined, proceedings being taken in both cases by the police. We then pointed out that there is really no offence in such cases, because when preparations of poisons sold for the destruction of vermin were scheduled they were not specifically put in Part 1 of the schedule. This is a point which may be referred to by the Poisons Committee, as it applies equally to sales of arsenical sheep-dip, which are rarely registered.

In Ireland, what is known as the Tullamore case takes first rank, as showing how the efforts of the Pharmaceutical Society to enforce the provisions of the law are sometimes defeated by the Justices. It was a relic from 1900, and referred to an illegal sale of corrosive sublimate by the unqualified assistant of P. & H. Egan. The Magistrates dismissed the case, and the Dublin High Court Judges sent it back to them. In January the local Magistrates first fined the defendant, then altered the order to implicate the assistant, and gave the firm costs against the Society, on the ground that, being an incorporated body, they were

outside the Act. Proceedings had been taken under Section 2 of the Poisons Act, 1870, which is equivalent to Section 17 of the Pharmacy Act, 1858, so that the House of Lords' judgment was involved. The Pharmaceutical Council appealed, and the High Court granted the appeal, holding that corporations are included in Section 2. When the case again came before the local Magistrates they acquiesced in the High Court direction, but in a perfunctory way, the defendants being fined. In March the Council took proceedings against photographic dealers in Dublin for selling poisons, including potassium sulphocyanide. In the result it was found that sulphocyanides are poisons within the meaning of the Irish Poisons Act; also that the Dublin Magistrate has power to modify penalties.

COMPANY MATTERS.

The Companies Act, 1900, came into force on January 1, but its deterrent effect on company-pharmacy formation is *nil*, for no fewer than 110 corporations have been registered during the year, with power to carry on business as, amongst other things, "chemists and druggists." Of these only a minute proportion are *bona-fide* drug companies, the majority having for their primary objects some engineering, soap-making, or proprietary-pushing project. By far the most interesting registration—so far as the pharmacy of the country is concerned—was the floating of Boots Cash Chemists (Southern) (Limited). It is the result of an amalgamation between the forces of Mr. Jesse Boot and Mr. William Day with an authorised capital of 300,000/. Dr. E. T. Pritchard, who was a co-director of Mr. William Day's, was made a director of the new company along with Mr. Jesse Boot and Alderman Duckworth, J.P., of Rochdale. The 72,000 shares offered to the public were eagerly subscribed for. Mr. Day has retired from business. Amongst old-established pharmacy firms which have incorporated during the year are Hooper, Sruve & Co. (Limited), and F. M. Rimmington & Son (Limited), of Bradford. Six dental firms have taken the precaution to add the trade of "chemist and druggist" to their repertory by becoming "limited," and druggists and patent-medicine proprietors are as numerous as in former years. St. Jacobs Oil (Limited) has been promoted during the year by Mr. W. C. Geddes, and there has also been a new issue of 4,000 preference shares in Daisy (Limited).

PRICES.

Is cutting on the wane? A year or two ago this would have been the question of a dreamer; to-day it is pertinent and seasonable. Partly through the work of the Proprietary Articles Trade Association, but generally owing to universal disgust at the unprofitable nature of business in proprietary articles, the keenest cutters are now more amenable to reason, and several manufacturers and proprietors, who previously would not interfere, have during the past year arranged schemes for ensuring a minimum profit on their goods. The heaven is working well, and with patience and persistent kneading of the unleavened mass more of that character will be got during 1902. It is appropriate to mention here that in May Messrs. Elliman, Sons & Co. took proceedings against several individuals who had violated their anti-cutting agreement. The case was complicated by one of the parties not having signed the agreement, but Messrs. Elliman succeeded in showing the Court that the first party to whom they sold had signed the agreement, undertaking not to sell to a second party without a similar agreement. Injunctions with damages were granted against these parties, and it was the third, who had not signed, who got off. This proved that anti-cutting agreements are valid, and can be enforced. The P.A.T.A.'s year has been almost uneventful, because its Executive has a handful in the

Chemists' Defence Association, for which there is an untitled field to work in. Legal matters absorb the Association's attention. The Secretary and solicitor have had plenty to do in defending charges brought against chemists under the

SALE OF FOOD AND DRUGS ACTS,

which have become the *bête noire* of the whole trade. The year had little more than opened when the Court of King's Bench had to decide, in the case of a sale of ointment of mercury weaker than the British Pharmacopoeia preparation, whether the B.P. is or is not a standard for such articles. They held very decidedly that it is. Nevertheless, when a precisely similar case was heard by the Magistrates in Canterbury a few weeks later, and the facts regarding the sale and use of weaker mercurial ointment were plainly put to them by the solicitor for the Chemists' Defence Association and witnesses called for the defence, they dismissed the summons. The authority of the British Pharmacopoeia can undoubtedly be pushed too far, and this was done at Ripley in June, when, on the advice of the public analyst, a chemist was summoned for selling bicarbonate of soda for carbonate. Here again the C.D.A. stepped in with overwhelming evidence, but such cases as this travesty the Act. In March several chemists in Lambeth were summoned for selling mag. carb. pond. when heavy magnesia was asked for, and the decisions varied. As usual many of the prosecutions under the Act have been in respect to spirit of nitrous ether, and Mr. Glyn-Jones has quite recently proved the useful point before the Saxmundham Justices that this article, being perishable, should have special reference on the analyst's certificates. The conditions under which the spirit is divided when purchases are made under the Act must frequently lead to diminution of strength, and if public analysts (who, after all, are by virtue of their office not prosecutors, but judicial officers) gave closer attention to this point, legal proceedings might be averted in some cases. Compound tincture of benzoin (in Birmingham) and boric ointment and methylated liniments (in London) have also given rise to series of cases. A few High Court decisions have been given during the year, apart from that in *Dickens v. Randerson*. It was decided in a Divisional Appeal Court (*Sneth v. Taylor*) that the analyst need not state the weight of a sample in his certificate. In the case of *Pearks (C. & D., November 23)* it was held that service of a summons on a company must be to the company's registered office—an opinion which the North London Magistrate had previously arrived at in a soap-liniment case against *Taylor's Drug Company (Limited)*, which case came up again after the twenty-eight days mentioned by the Act had expired, and was again dismissed by the Magistrate for that reason. In regard to warranty, the King's Bench Division (Justices Bigham and Ridley) held, in *Elliot v. Pilcher*, that a written warranty to the effect that "each and every supply of milk sold by us shall be new milk, unadulterated, and with all its cream," was under Section 25 of the 1875 Act a good warranty, applicable to cases taken under Section 6, but not to those taken under Sections 3 and 4. Under Section 6 there is virtually no escape for the seller of an adulterated article, unless he has a legal warranty, which fact was demonstrated in May by a special Court constituted to try appeals from findings in respect to the sale of beer containing arsenic. The only other case which we shall refer to now is that of glucose in marmalade, decided by the High Court a few weeks ago. The Worthing Magistrates convicted in March, and the Quarter Sessions confirmed the conviction; but the High Court quashed it, because the sale was not to the prejudice of the purchaser, since the addition of glucose really improves the keeping-properties of marmalade.

Law is a most absorbing topic to those who are interested in it, and reference to the Index which is included in this number shows how largely legal decisions bulk in the year's record; but it would be painful to go over all the ground. Still, it is right to mention that the High Court removed the word "vaseline" from the trade-marks register, and an American Court has held "British lanolin" not to be an infringement of the Lanoline patentees' rights. We may also note that the Welsbach-mantle people have been active in prosecuting infringers of their patents, and the Board of Inland Revenue has lately been looking into the manner in which retailers of medicines conform to the Medicine-stamp Acts, with the result that many offenders have had to pay modified fines.

TRADE-MARKS.

The applications for trade-marks during the year have been numerically above the average, especially in the chemical classes. About 600 applications for marks have been advertised in these classes. The practice of registering words with disclaimers has increased markedly, and some of the disclaimed words appear rather ridiculous, as may be judged by the following examples:—

"Kenalos." No claim for "Kennel." For a mange-lotion.
 "Lectric." No claim for "Electric." For a polishing-paste.
 "Hairahoy." No claim for "Hair." For a hair-wash.
 "Foia." No claim for "Foie." For a chemical.
 "Sassperr." No claim for "Sass." For a herb-essence.
 "Waterine." No claim for "Water." For a boiler-composition.
 "Egso." No claim for "Eggs." For a sugar substitute.
 "Puritana." No claim for "Purity." For perfume and toilet-articles.
 "Aesiab." No claim for "Easy." For a chemical.

It is difficult to understand of what particular value to the owners many trade-marked words will be, to which disclaimers are attached. For instance, the mark "Koffmeline" was applied for in connection with a cough-mixture, and yet the exclusive use of the words "cough" and "mel" are disclaimed, so that it appears perfectly open for a rival "Cough-mel," or even "Coughmelleen" to be likewise trade-marked, and as such articles are more often than not asked for verbally, and the retailer has only the pronunciation of the customer and his own interest to guide him, the article which bears the biggest profit will often get preference.

PRACTICAL PHARMACY.

Much as the two thousand odd pages of this year's CHEMIST AND DRUGGIST is occupied by a chronicle of events in the world of pharmacy, more than a tenth of the space being devoted to correspondence, there is yet a goodly proportion in which original contributions have appeared. We have before us a list of over fifty of these dealing with pharmaceutical chemistry, materia medica, and extemporaneous and galenical pharmacy, besides the articles on similar topics by our staff and from associations. We have therefore justified the sub-title "a journal of pharmacy and the drug-trade," for apart from these contributions to the practice of pharmacy, we have, it may fairly be claimed, on many occasions during the year focussed or led trade opinion on matters closely affecting their interests—for example, the medicine-stamp question.

Pharmacy, as a whole, is the better for 1901, for it has been richer than usual in work accomplished. The British Pharmaceutical Conference, as the leader in practical pharmacy in the United Kingdom, had during the year published a revised Formulary, which has had a good reception. The meeting of the Conference in Dublin in August, under the presidency of Mr. G. Claridge Druce, was exceptionally good in every respect, and its success dispelled the illusion of those who predicted an end to this most useful organisation.

The Conference will meet in Dundee next year, and we hope that pharmacists in Scotland and the North of England will make the meeting thoroughly successful. Mr. Naylor's retirement from the hon. secretaryship is, we are pleased to note, to be marked by a tangible expression of appreciation from the members of the Conference. In its relations to pharmacy.

PURE CHEMISTRY

has made steady progress without, perhaps, any striking discoveries of paramount importance. The domain most nearly affecting the practical aspect of pharmacy is that of the chemistry of the alkaloids. Many new alkaloids have been isolated, and these have been referred to at some length in our columns during the year; but none of them can be said to have much practical importance. The now long-continued work of Willstätter on the tropine bases has resulted in the complete synthesis of atropine and other solanaceous alkaloids, which is an achievement of the highest importance, and may ultimately lead to valuable practical results. The chemistry of pilocarpine has also advanced well, chiefly through the researches of Jowett in England, although Pinner and Kohlhammer in Germany have not been slow to follow him in his fruitful research. Pictet has the credit of isolating three new alkaloids from tobacco, which had escaped notice in previous investigations of this plant. These are nicotimine, an isomer of nicotine, nicotine, and nicotelline. Jungfleisch has made an elaborate investigation on cinchonine and its allies, and his results are of great interest as regards the isomers of that base. He has shown, too, that most samples of cinchonine contain hydrocinchonine, which is responsible for a reduction in the rotatory power of the specimen. The chemistry of the corydalis alkaloids has received a fresh stimulus by Gadamer and Bruns taking up the work, and much has been achieved by them and especially by Dobbie and Lauder in this country during 1901, as the contribution in this issue proves. Closely allied to this department is the recent work on the glucosides; here, however, but little of importance has been achieved. Cloetta's contribution to the chemistry of the digitalis glucosides is perhaps most worthy of record, as it to a certain extent helps to clear up the apparent differences between the previous work of Killiani and Schmiedeberg. A further development of Emil Fischer's synthetic work on glucosides has been carried out by our countrymen Mills and Ryan, resulting in the preparation of several more of these compounds. Analytically we must not fail to notice the work of Garsted and Collie on the estimation of cocaine, carried out in the Research Laboratory of the Pharmaceutical Society. The quantitative determination of morphine by reduction of silver salts has also been elaborated by Reichard, and the method is claimed to give very satisfactory results. The only other point in this section which space permits us to mention is the refinement to which Kippenberger has carried his methods of purifying the alkaloids by means of tannic acid in toxicological analysis, a piece of work of little seeming importance, but which when carefully examined is seen to be of great value. We may also note the Wellcome Laboratory research by Dr. Frederick B. Power on the locust-tree bark, which resulted in the isolation of several interesting principles described to the British Pharmaceutical Conference. Some reference should be made to the important researches in the terpene and essential oil group, but in face of the index in this number it will suffice to refer to the discovery by Soden and Rejahn of a fairly soluble alcohol, phenyl-ethyl alcohol (present to a very large extent), in the leaf of the rose. This alcohol, they find, passes over and remains in solution in the rose-water, the resulting otto con-

taining only traces of it. This at once explains the difference in odour between rose-water and otto, and the same principle appears to hold good in several other cases. Burgess and Child's discovery of a new aldehyde in lemon oil is also of interest, as it emphasises the fact that nearly all the oxygenated-bodies present in lemon and orange oils, with the exception of citral, have been discovered by English chemists.

ASSOCIATION AFFAIRS.

The number of local associations has increased by six during the year, new societies having been founded at Eastbourne, Hastings, Huddersfield, Middlesbrough, Torquay, Wakefield, and Whitehaven; but on the other hand the Brighton, Inverness, and Liverpool students' Associations have dropped out. THE CHEMISTS' AND DRUGGISTS' DIARY shows that there are now sixty-nine local societies, but twenty of these do not appear to have met during the year, and are, we believe, moribund. The remaining forty-nine have between them met 249 times for business and festive purposes. The Chemists' Assistants' Union and Chemists' Managers' Association have amalgamated as the Chemists' Managers' and Assistants' Society, with Lord Avebury as honorary President. A large proportion of Association meetings in the early part of the year were called to consider the Pharmacy Bill and early-closing, to which allusion has already been made. On the practical pharmacy side good work has also been done, as may be judged by the following points from some of the papers. Mr. John Taylor, in an address on "Individualism in Pharmacy" at Bradford, gave his ideal of pharmacists as "a body of men as intellectual and able as the material rewards of their trade or profession will enable to subsist, and so banded together to develop, as far as possible, the individual merit of each and the well-being of all." Mr. Whaley also gave this Association an extremely interesting account of the utilisation of waste products, wool-fat recovery being important locally. Mr. Black, in dealing with the progress of pharmacy, thought things were not so black as they are painted, and that to proprietary medicines chemists owe a part of their prosperity. The Barnsley Association hit upon the idea of billing the neighbourhood by means of 50,000 circulars announcing the intention of the local chemists to use special poison-bottles for dangerous drugs. The Cardiff Pharmaceutical Association have matured a scheme of co-operative buying, and the Assistants' Association there have had some papers, such as Mr. Swadling's, detailing the best methods of making certain ointments. The papers before the Chemists' Assistants' Association have been of a varied character. Professor Norman Collie discoursed on the new gases of the atmosphere. Mr. Coupland said that the quality of cream of tartar has improved of late years. Mr. W. A. H. Naylor read a valuable paper on the preparation of oleates, and Mr. Geo. Roe this month shed light on the vagaries of black wash. The Dewsbury Association, with the North-east Lancashire Association, took up the cause of Mr. R. L. Gifford as a candidate for the Council, and succeeded in getting him a seat. The Edinburgh Assistants' Association have had numerous practical papers before them. Mr. Dott showed the members how to use the polarimeter spectroscope and microscope, and read notes on the B.P.C. Formulary and the B.P. as a standard. Mr. Peter Boa again discoursed on the non-stirring method of making ointments. Mr. Wm. Duncan detected the presence of hydrogen peroxide in paraldehyde and found that the insolubility of turpentine in glacial acetic acid does not necessarily imply a spurious oil. The Exeter Association devised a scheme of Sunday-duty by rotation—which might be done generally. The Forfarshire Association is busying itself with preparations for the Con-

ference which is to be held in Dundee next year. The Glasgow Assistants' Association have had a paper by Mr. Maben on standardisation, and Mr. J. P. Gilmour threw some life into the Association (which is in a decline) by a vigorous exposure of doctor's shops. The Liverpool Chemists' Association has done, as ever, excellent work. Mr. E. Davies, the veteran analyst showed the close relationship that exists between phosphorescence and fluorescence, and Mr. Shacklady in a paper on bookkeeping said that chemists are often overcharged for income-tax on account of the loose way their business-books are kept. Messrs. Cowley and Catford have thrown considerable light on the inorganic constituents of cardamoms as revealed by the ash, and have made suggestions for improvement of ferrous phosphate. The Liverpool Students' Association has had so good contributions to pharmaceutical literature that only its demise revealed the fact that its active existence had for some time been expressed in the reports of its meagre meetings—a rather widespread affection, we fear. The Manchester Pharmaceutical Association dealt with fermentation and bacteria, the evolution of medicine, and less weighty matters. The Midland Pharmaceutical Association spent one evening studying photography presented in its different aspects by Mr. H. W. Jones and Mr. Proctor. Spectacles, another subject of interest to pharmacists, were also considered at this month's meeting. Nottingham had tips from Mr. A. R. Bennet on the pharmacy of some of the newer remedies and on the Sale of Food and Drugs Acts, and Mr. Eberlin presented the known facts about bacteria in a popular fashion. The Newcastle Association has had papers by Mr. Dudderidge on percentage solutions, and by Mr. Merson on the Sale of Food and Drugs Acts. The subject brought before the Federation by Mr. Paterson (Aberdeen)—state-aided schools of pharmacy—is now going the rounds. The Public and Poor-law Dispensers' Association has had papers on drug-grinding, bottle-making, and practical methods of making lin. tereb., emulsio ol. morrhue, and solutions. Mr. Glyn-Jones also gave the Association his views on the laws relating to dispensers. The Torquay Association shows a tendency to make itself useful in trade-matters. Wolverhampton produced a good paper on dispensing solutions used in hospital-practice. The formation of a metropolitan Association has recently been discussed at the Holborn Viaduct Hotel, but we wait for 1902 to show whether it is to exist or not. In Ireland the Chemists' and Druggists' Society is the only one which has had evening meetings, trade-matters being freely discussed, but Dublin chemists have had their hands full with Conference arrangements which they carried out splendidly.

MEDICAL MATTERS.

The General Medical Council and the Royal Colleges in London have not done quarrelling yet. It is about the Council's power to enforce its supervision of where and when medical students shall study, and the net result of the quarrel so far is that the Colleges are not to require those who wish their diploma to register as medical students, but they must pass the Preliminary examination. The Council may have a remedy when these students get their diplomas and wish to be registered as practitioners, which the Council may refuse to do. At the spring meeting of the Council two infamous-conduct cases of exceptional importance were tried. In one the doctor employed by the Birmingham Consultative Institute was the defendant, and his case drew the attention of Parliament because he had been appointed a School Inspector. The doctor seemed to ignore the Council at first, but ultimately came before it to be told that nothing was to be done. The second case was against a Scotch doctor, whose unqualified assistant was fined under

the Pharmacy Act for selling poison. This the Council regarded as infamous conduct, and with a caution let the culprit off. The medical heather in the West of Scotland was all ablaze at once, the Medical Council being roundly condemned, but that body kept steadily on its way, and had seven more doctors up before it this month, who humbly apologised and were let off. The Council has issued an even stronger notice to medical men in regard to the matter, but it designedly avoids reference to unqualified dispensers in surgeries. Several deaths have been reported during the year as the result of careless dispensing in these places. The matter is worth looking into, and we seem to remember that the Pharmaceutical Council at one time appointed a committee of inquiry; but it is so long ago that it would be rash to trust the memory on the point.

PHOTOGRAPHIC AND OPTICAL

matters have but little novelty about them. From a dealer's point of view the most important event has been the attempt by the Kodak Company to force an agreement on retailers who stock their goods to abstain from selling competing films. This proposal was vigorously resented and brought about the formation of the Photographic Trade Association (dealers), and the Free Camera Club (users). The Kodak proposals seem to have been abandoned, but as the year closes the company announces that with the new year special discounts to wholesalers will be discontinued, which looks as if direct dealing with retailers is to be encouraged. The examinations of the Spectacle-makers' Company in May and November resulted in the addition of eleven chemists to the roll of the Company as qualified opticians, making a total of ninety-four chemist-opticians who have passed the optical examinations. At two meetings of the Optical Society the question of the education of opticians has been debated, with the result that a committee was appointed to consider the question.

INDIA AND CEYLON

are practically without pharmaceutical organisation, although their trade interests, so far as medicine-purchasing power is concerned, are great. The sale of poisons has been centralised in Ceylon during the year by a new Ordinance, which, however, does not call for special fitness in the sellers. Several suggestions have been made for better controlling the sale of poisons in India. The subject deserves the serious attention of the Governments, but is attended with greater difficulties than can be imagined by people at home.

AUSTRALASIA.

On the first day of the century the six colonies of Australia became a commonwealth. This bears no direct relation to pharmacy, and has had no effect on intercolonial reciprocity of pharmaceutical diplomas, although at one time it seemed that it would, for a conference of the Pharmacy Boards was arranged; but first one and then another condition was imposed on the delegates, with the consequence that nothing practical has been done. A compulsory early-closing Act is the feature of New South Wales legislation, chemists' shops being exempt from the penalties of the Act if the goods supplied after hours are medicines or medical necessities. An attempt has also been made to define a chemist's business, and a fairly comprehensive description has resulted. Mr. F. Kemp has also initiated an anti-cutting scheme. Other items to be noted are the appointment of a travelling inspector in New South Wales, whose duty it is to look after infringements of the poison laws and report to the Pharmacy Board, and the

publication by the Pharmaceutical Society of Australasia of a draft Formulary for unofficial medicines, which it is possible will also be adopted by New South Wales. The continuation of the war in

SOUTH AFRICA

has kept pharmaceutical affairs, like everything else in that country, in an unsettled condition. All the business done has been subservient to the severity of the military situation, and towards the end of the year military requirements became so stringent that with the proclamation of martial law in Cape Town itself, the restriction of trade became even more pronounced. Notwithstanding these drawbacks there are many South African chemists who (as evidenced by our correspondence) have withstood the vicissitudes of the situation. During the year the Pharmaceutical Society of Cape Colony had five meetings at Cape Town. At the annual meeting in February an address was delivered by Mr. F. W. C. Thomas, the retiring President, in whose stead Mr. J. A. Mathew (of Heynes, Mathew & Co.) was elected; and in June a committee was appointed to establish a benevolent fund. Another committee has since been appointed to consider the question of admitting foreign qualifications. The Pharmaceutical Society of Rhodesia met at Bulawayo on January 17, when Mr. Harold W. Smart (of Smart & Copley) was elected President. Mr. R. Butters, President of the Transvaal Pharmaceutical Society, wrote to Lord Milner early in the year concerning the status of his Society and of chemists generally under British rule. Lord Milner was not then prepared to move in the matter, but when he does he will doubtless apply to the Transvaal the same conditions as in Cape Colony, which permit registration on British pharmaceutical certificates.

BRITISH TRADE.

Commercially, the first nine months of 1900, so far as Mincing Lane produce is concerned, were fairly prosperous, but the last quarter has been less active. The Board of Trade returns show that up to the end of November imports decreased by 1,769,407*l.*, and the exports by 11,654,222*l.*; last year at this period both imports and exports showed increases of 32,000,000*l.* and 25,000,000*l.* respectively, so that this year's conditions are not altogether to be grumbled at. Re-exports of foreign and colonial merchandise have increased by 3,900,000*l.*—a gratifying figure, as it shows we hold our own in the carrying trade, notwithstanding foreign subsidised competition. Exports of chemicals have shrunk by 270,000*l.* during the eleven months, but expansion is noted in our exports of drugs and medicines, which amount to 1,227,000*l.* for the eleven months. This is where the British wholesale druggist scores, and is a testimony to the purity of his preparations. Several minor concessions and alterations have been made in regard to the exportation of alcoholic medicinal preparations and perfumes—a branch of business which has steadily increased during recent years.

TARIFF CHANGES.

If evidence is wanted of the fallacy of Protectionist methods, it is to be found on the Continent, especially in Germany, where there has been a severe commercial crisis, from which the chemical industry has not altogether escaped. For the past few years we have heard much about the progress of Germany's foreign trade, and we have been repeatedly urged by our Consuls and others to follow their methods by giving longer credits and lowering our prices. To this policy, however, the present crisis may be partly attributed, but especially to the failure of the Leipzig and other German banks, which was brought about by irresponsible management and reckless company-promoting. The

proposed new tariff may affect the export business inasmuch as the taxes on foodstuffs will not only increase the cost of living and cost of manufacturing, but tend to decrease the policy of give and take which has made the United Kingdom first in mercantile eminence on account of the freedom with which she exchanges her manufactures for natural produce. Germany has yet to learn that lesson.

France has also shown a slackening down in commercial activity in common with other European countries. According to official statistics there is likely to be a deficit of between four and five millions sterling in the French Budget at the end of the year, owing partly to costly administration and increased national expenditure. France, formerly second, is now fourth in rank among commercial nations as regards foreign trade.

Apart from the German tariff one equally important to us has been that of the Australian Commonwealth, which is still under discussion, but came into operation in October. Except that New South Wales had no tariff, the new rates on drugs and medicinal compounds remain practically unaltered at 25 per cent. *ad val.*, but many allied articles have been increased. The formation of a South African Customs Union has been on the cards for some months, and a conference is to be held shortly. Lord Milner has taken up the matter, and there is a prospect of the conference adopting preferential tariffs for British goods. In China it has been found necessary to substitute a 5-per-cent. *ad val.* duty on imports for those at present in force, pending the reconstruction of a specific tariff under the terms of the recent peace protocol. In regard to South America the situation in Venezuela and Colombia has been very unfavourable, owing to the rebellion; while trade with Brazil is hampered by changing and contradictory Customs regulations. The giving of six, nine, and even twelve months' credit by German drug-houses does not help matters either. Commercial conditions in Mexico have also undergone a change for the worse. No change in the commercial policy of the United States has occurred during the year, and Mr. Roosevelt has endorsed his predecessor's views. The export trade of the country up to the end of August had exceeded all previous records.

CRUDE DRUGS.

In the drug and chemical markets, the fluctuations have been fairly numerous in 1901. Cape aloes has never been so scarce, and the record price of 38s. was paid last week. Other descriptions of aloes have been fairly plentiful, but the so-called East African aloes has met with little demand and several consignments were slaughtered. Exceptionally high prices were paid for fine pinky asafetida in February—up to 6*l* 17s. 6*d*. per cwt. Tolu balsam has been in excellent demand at between 1s. and 1s. 2*d*. for large tins. Canada balsam has advanced by 9*d*., owing to scarcity. Copaiba has been plentiful and cheap, but druggists' Maranham of good quality always finds a ready sale. There has been a comparative absence of fine Sumatra benzoin this year; Penang has been very scarce, and so has Siam gum. The regular demand for Sumatra kinds culminated in October with a boom, and an advance of 7s. 6*d*. in auction. Contrary to last year's experience buchu-leaves have been plentiful, and are now 3*d*. cheaper than in January. The United States (the principal consumer) has been buying direct of late, to which the lower prices are attributed. Calumba has been low in price and quality, with importations larger than usual. The effect of the duty has made itself felt on cannabis indica, and at present prices very little is now imported. Ceylon cardamoms have been cheaper, although imports are less; 4s. 3*d*. was the highest price reached in auction. Cubebs have shown no animation, and prices have been more or less

nominal throughout. Fine dragon's-blood has been lower, although imports have dwindled considerably. The cessation of hostilities in the Philippine Islands has freed larger supplies of elemi, and although 8*l*. was paid for fine in July, it is much cheaper now. A small crop of Persian galls has helped to maintain the higher range of prices for that article which ruled last year. Gamboge is considerably higher, as there has been no crop for two years, it is said, and the shipments from Singapore bear out the statement. Brazilian ipecacuanha has well maintained the high level of prices which have ruled for two years, in spite of a large stock and less consumption. The year opened at 10s., and thence to March there was a gradual advance to 12s. 6*d*. since then there was a decline to 10s. 6*d*. Columbian ipecacuanha has fluctuated between 5s. 3*d*. and 8s. per lb., the latter figure being paid in March, and the consumption has increased. Large stocks of kino have kept down values, which show a decline of 9*d*. from the highest point. About June there was a rumour of a restriction of the output of the drug, and although this did not actually come off the rumour was really based on a departmental consideration of the subject. Good myrrh has been comparatively scarce, and picked has brought high prices. Florentine orris has had a further serious decline, present prices being the lowest on record. Fine Shensi rhubarb has again been scarce, and the bulk of the parcels offered in auction have been of the medium and lower grades. Very little rhubarb came forward from China during the first six months of the year, but latterly shipments have improved. Values of saffron close with a decline of about 9s. on the year, owing to the remarkably good crop. Grey Jamaica sarsaparilla is cheaper; prices have fluctuated between 1s. 2*d*. and 1s. 6*d*. per lb. in auction. Tinnevely senna is as popular as ever, but fine green leaf has been conspicuous by its absence. Pods have been remarkably plentiful and very cheap. No animation whatever has characterised Alexandrian senna, and all the chief centres of distribution appear to be overstocked, and prices have been very low.

CINCHONA AND QUININE.

Java exports of cinchona for January–November show an increase of over 1,800,000 Amsterdam lbs. compared with 1900. We stated in May last that the cultivation of cinchona in Java was increasing, and although this fact has been doubted in several quarters, the above figures and the observations on the spot by Mr. Seely which we have published, prove it. The packages offered at the ten auctions in Amsterdam are a record in number, but the average unit paid has been lower than in 1900. In January it stood at 7*l* 25*s*.; the price gradually advanced until June, when a unit of 10*l* 45*s*. was paid, but from that time there has been a steady decline to 7*l* 65*s*. owing to heavy shipments. There has been an absence of that great excitement in quinine, which characterised 1900, and prices, both officially and "outside," have fluctuated within narrow limits. The makers' price to-day is $\frac{1}{2}$ *d*. dearer than it was in January, when it practically opened with a reduction of $1\frac{1}{2}$ *d*., being 1s. $1\frac{1}{2}$ *d*. It then gradually advanced to 1s. 5*d*. (the highest point touched) by the end of May. The second half of the year witnessed a decline as the bark-shipments poured in. In the second-hand market 1s. per oz. was paid on two occasions—viz, January and October—but this quotation was only momentary, and applied to exceptional transactions of weak holders. The highest spot price paid in second-hands was 1s. 4 $\frac{1}{2}$ *d*. in May, when makers quoted 1s. 5*d*.

CHEMICALS.

The iodine-market has been in an unsettled state. In March there was a reduction of 1*d*. in crude iodine, with a

corresponding reduction in iodides. This was evidently intended to act as a deterrent to the buyers of Japanese iodides, parcels of which have been frequently hawked about. There have been many rumours of further reductions, but to the surprise of everybody they have not taken place. There have only been two reductions in quicksilver prices this year, and second-hand business has thereby been considerably curtailed. It opened at 9*l.* 2*s.* 6*d.* per bottle, and was reduced 2*s.* 6*d.* in May and again in November. The camphor-monopolists have by no means had matters all their own way, as the competition from Japanese crude camphor has led to a considerable reduction in prices. In January crude Formosan or monopoly camphor was quoted 183*s.* 6*d.* c.i.f., and it is now obtainable at 165*s.* c.i.f. There is no doubt that naphthalin has been in increased demand this year as a substitute for camphor, especially as a deodorant. English refined camphor is 3*d.* cheaper than in January, and German refined is also lower.

Citric acid opened the year at the same face value as the pills that are worth a guinea a box, and rushed up to 1*s.* 6½*d.* in March, but is now worth 5½*d.* less. There has been severe competition in tartaric acid by foreign make, and English closes ¾*d.* lower on the year. Cream of tartar has also been cheaper owing to abundance of raw material. Taking the commercial crystals (in which the bulk of the business is done) there has been a continuous decline, amounting altogether to 7*s.* per cwt.

The bismuth combination partially lost the hold on the market, as evidenced by two sudden drops of 1*s.* 6*d.* and 1*s.* in August and March respectively. Caffeine is also 3*s.* 4*d.* lower, owing to the manufacture of a synthetic article. Codeine has seen-sawed a little, but a reduction in October by 1*s.* 8*d.* has since been followed by an advance of 10*d.* Cocaine, in spite of two changes, stands exactly where it did in January—say a guinea an ounce in bulk quantities. This very high figure is foreshadowed to rise, as makers are freely delivering off contracts, and second-hands are practically sold out. In April a combination was formed among glycerin-refiners, which fixed the price at 63*l.*, where it remains. Santonin was advanced 2*s.* 3*d.* in March and 1*s.* in June, and as there is now no second-hand stuff to be had below makers' price it will in all probability advance further. Manufacturers of American sugar of milk formed a combination in September, but values are lower. One of the chief events of the year in chemicals has been the collapse of the sulphonal-market, brought about by the severe price-cutting of a new Swiss maker. From 20*s.* 6*d.* in January it has dropped to 5*s.* 6*d.*, a price at which buyers have taken the precautions to lay in a good stock. Considerably more interest has been shown in menthol this year, and its consumption is increasing. Prices have been high throughout, stocks have been small, and the market has been excited at times. The spot price is 2*s.* higher than in January. Thymol was very scarce during the first half of the year, owing to lack of ajowan-seed, but latterly it has been cheaper.

HEAVY CHEMICALS.

The year opened well in the heavy-chemical market, but by the end of February there was an all-round dullness, which prevailed until about the end of May, when matters slightly improved. It was not, however, until September that any real improvement took place, but since then a better tone has been prevalent. Owing to the agreement made between the principal English and continental manufacturers, mention of which was made in our last review, values of main products have not shown any great fluctuations, and again manufacturers have generally considered it advisable to

limit production to somewhere about the general demand, rather than carry heavy stocks. Bleaching-powder has fluctuated between 6*l.* 17*s.* 6*d.* per ton and 7*l.* 2*s.* 6*d.* Caustic soda has shown little alteration, and, generally speaking, with the exception of perhaps May and June, has continued in active demand. Bicarbonate of soda and soda-ash have also shown little or no fluctuations. In alkali an advance of 5*s.* per ton took place in January, bringing the quotation to 4*l.* 12*s.* 6*d.* and 4*l.* 17*s.* 6*d.*, and these advanced figures ruled until reduced in September by 5*s.* for delivery, and 10*s.* for 1902 contracts. Chlorates of potash and soda have been weak and depressed all through. Yellow prussiates of potash and soda have been irregular, and are lower on the year. Over-production in hyposulphite of soda on the Continent has brought about lower prices. Cyanide of potassium has declined considerably, and demand has been poor. Arsenic has ruled low, but, owing to the closing of the Great Devon Consol Mines, price has improved recently. Bichromate of potash has been severely cut this year, and the discount allowances have been considerably increased. Borax has dropped 4*l.* per ton on the year.

OILS.

There have been some important movements in the leading essential and fixed oils, but with very few exceptions the tendency of values has been downwards—*e.g.*, sweet almond oil has continuously dropped from 1*s.* 11*d.* to 1*s.* 3*d.* per lb., in consequence of good harvests in Sicily and elsewhere. Chinese star-aniseed oil has also been low, and closes 6*d.* cheaper than in January. Probably the growing consumption of anethol has displaced it to a certain extent. The value of cassia oil has also declined considerably, which is somewhat surprising, in face of the small stocks in China. However, prices are the lowest for many years, and would appear to have reached their limit. Lemon-grass oil has advanced from 4*d.* to 8*d.* per oz. on the spot, owing to scarcity, but the present high price prohibits business. Over-production in Ceylon citronella oil has brought down prices to a remarkably low level, but a farther reduction from the present prices (9½*d.* to 10*d.*) seems impossible. American peppermint oil has been a feature, there having been a slow but steady upward movement throughout—*e.g.*, HGH, which was worth 5*s.* 9*d.* in January is now selling at 9*s.* English peppermint has also advanced about 15 per cent., and Japanese oils are also dearer. Never was the market so well stocked with eucalyptus oils as it has been this year, and never has the price of B.P. (not necessarily the best) oil been so low. Keen competition has characterised the sandalwood-oil business, and although prices of East Indian were advanced during the first six months, the market is not so firm as it was. There was a good average harvest of otto of rose in Bulgaria, which has prevented any substantial advance. Oil of lemon has been cheap, owing to a large lemon-crop and a high yield of oil. Bergamot shows a decline of about 3*s.* during the year, and sweet orange has been in less demand at comparatively low prices.

THE UNSUCCESSFUL.

The first quarter of 1901 was exceptionally heavy in the number of bankruptcies recorded under the heading of "Chemists and Druggists." This class includes, besides registered chemists—medical practitioners, druggists, and drug-store proprietors, and the record showed an increase of fifteen on the corresponding period in 1900. In the four weeks ending July 27 seven "chemists and druggists" failed, the same number as that reported in July, 1900. Fourteen failures were recorded for the quarter ending September, against eighteen in the previous year. An

analysis of the bankruptcy reports, failures, trust-deeds, and deeds of arrangement published in THE CHEMIST AND DRUGGIST during the past year makes it evident that over sixty failures have taken place amongst retailers who are either registered chemists or who have traded as chemists and druggists. Six drug-store proprietors and druggists have gone under, and two wholesale druggists—none of the latter, however, being in a large way of business. Three large firms of drug-merchants have suspended payment during the year, involving considerable losses amongst well-known Mincing Lane drug-brokers.

OBITUARY.

Custom, rather than choice, dictates some reference, however slight, to the losses which the trade has suffered by death in 1901. The index which is included in this number contains the names of nearly two hundred persons who have passed away since June, and in the earlier half of the year an equally heavy roll was recorded. It included Messrs. A. K. Bruce, I. B. Fletcher, C. J. Hewlett, and S. L. Howard amongst British chemists, and Dr. Charles Rice, the Chairman of the United States Pharmacopœia Committee.

German Colonial Enterprise.

AMONGST the first fruits of the German Empire was the scheme of colonisation which the late Prince Bismarck founded, and which Kaiser Wilhelm has so assiduously nourished. Up to the present it has been a costly business to the German people, like everything else at the beginning, but he would be a bold man who would say that the policy is not good business. Germans are as fond of emigrating as anybody; why should they not have colonies of their own to live in? They are a pushing people in the way of business, and emulate the Britisher in regard to foreign trade, but have the advantage of starting where we leave off. In the matter of colonisation it may be possible to get a point from the working of their Colonial Department, especially that which is called Kolonial-Wirtschaftliches Komitee—that is, the commercial and scientific bureau which was founded in 1896. From the last report of this bureau, for 1900–1901, we gather the following particulars to show what the colonies are:—

German East Africa, with 6,000,000 inhabitants, exported 3,500,000m. worth of goods in 1899, and imported to the value of 10,800,000m., being a decrease in exports of 400,000m., and in imports of 1,000,000m.

The Camaroons, population 3,500,000, in 1898 exported 4,600,000m. worth of commodities, and imported 9,300,000m. worth. The figures for 1899 are not yet available.

Togo, population 2,500,000, in 1899 had imports valued at 2,600,000m., and the exports were 3,300,000m. In this, as in the case of the Camaroons, there was an increase over the preceding year.

German South-West Africa, 250,000 inhabitants, imported in 1899 to the value of 9,000,000m., an increase of 30 per cent. over the preceding year, and the exports were valued at 1,250,000m.

The South Sea Colonies (Samoa, &c.) have 500,000 inhabitants, and the exports and imports were about equal—namely, 2,700,000m. of exports, and 2,800,000m. of imports.

Kiaw Chow (China) has a population of 48,000, and, for its size, is the best possession, as the exports were valued at 4,000,000m., and the imports at 6,500,000m.

Thus the total population of the colonies is 12,000,000, the entire trade for the year amounted to 60,000,000m. (3,000,000%), and the area of the colonies is 2,700,000 square kilometres. The only statistics given in the report as to white population refer to German South-West Africa, in which white persons numbered 2,872 in 1899, and in 1900 had increased to 3,388. Presumably these are the most favourable figures. The volume of trade is infinitesimal compared with the colonial trade of the United Kingdom, but

the German colonies are still in their teens. It is interesting to know that some of the companies engaged in German colonial trade pay good dividends. One in the Camaroons pays 5 per cent. to shareholders; the German Commercial and Planters' Company of the South Sea Islands paid 7½ per cent. in 1899; and in the same year the Jalnit South Sea Company paid 12 per cent. The exports mentioned above consist of natural produce, and it is one of the functions of the Bureau to help the colonists in regard to the methods of culture, especially of indiarubber, cocoa, coffee, tobacco, and the numerous plants which yield oils. In some respects the Bureau serves the functions of Kew, but much of the work is similar to that of the Scientific Department of the Imperial Institute. The Bureau has done excellent service through the expedition which Dr. Paul Preuss made to Central and South America in 1899–1900. Of this we gave a foretaste in our last Colonial issue by publishing Dr. Preuss's observations on the collection of, and trade in, Peru balsam. The Bureau has just published an elegant volume of 452 pages, in which Dr. Preuss gives an interesting report of his travels. He visited Surinam, Demerara, Trinidad, Grenada, Venezuela, Ecuador, Nicaragua, Salvador, Guatemala, Mexico, Havana, and Jamaica. In all these places he had very full facilities for inspecting the agricultural and arboricultural methods in practice. In the first part of his treatise he gives a narrative of his journey and what he saw, illustrating his remarks with numerous excellent photographs, and the second part of the volume is devoted to treatises on cocoa, vanilla in Mexico, Peru balsam, coffee-culture, indiarubber, guttapercha, and the cultivation of nutmegs in Grenada.

The latter part of the volume is the more valuable, especially in regard to cocoa-culture, this treatise being illustrated with plans of drying-houses and pictures of the best trees to grow, besides giving a thorough scientific exposition of the subject, and conveying much information on cocoa-harvesting. The treatise on vanilla is of special interest to Americans, who chiefly consume the Mexican kind, but to those who go in for vanilla-growing anywhere Dr. Preuss's observations are of value, as he tells all about the cultivation and cure of the favourite pod. From the first part of the book we have selected the following passages as typical of the nature of the author's observations:—

In Surinam he had a good opportunity of inspecting the two equally valuable forest trees—*Dipteryx odorata*, which produces the tonka bean, and *Copaiba copaifera*, which supplies copaiba balsam. The dipteryx is a fairly large tree, with a fine full crown and a magnificent dark-green foliage. Egg-shaped, somewhat long fruits are formed out of the violet papilionaceous flowers. The yellow, somewhat unpleasant smelling, flesh of the fruit surrounds a very fibrous hard seed-husk, in which are brownish-yellow seeds—tonka beans. In Venezuela a fully-grown tree can yield up to 100 (?) lbs., it is said. The price for 100 kilos. of beans rose in January, 1899, to 1,100m., owing to the fact that in Ciudad-Bolivar, Venezuela, there was a considerable over-production in 1898, the exports amounting to 83,814 kilos, and such a fall in price resulted that scarcely any beans were harvested in 1899. The fruits ripen in August, but they appear to extend over a great part of the year, as the ripe fruits and blossoms are on the trees simultaneously. Tonka beans are prepared in Trinidad by soaking in rum for a short time, then drying. In 1897 tonka beans to the value of 10,000m. were shipped in transit trade. According to the "Kew Bulletin" the value of the transit trade amounted to 30,000%, or 600,000m., in 1896. This, however, tallies badly with the Consular report from Ciudad-Bolivar, according to which the entire export of tonka beans from Venezuela amounted in 1898 (the over-production year) to the value of 371,347m. only.

The copaiba-tree is not rare in the woods of Surinam. In order to extract the balsam, which is present in special veins in the trunk, a deep notch is made in the trunk slantways from above as far as the middle. The balsam collects in this notch, and is extracted therefrom. A much better method of tapping, however, consists in boring a hole of several centimetres in diameter into the trunk until the balsam-vein is reached. Often in a very short time several litres of balsam flow out. A strong tree, in favourable

cases, is said to produce as much as 10 kilos. The balsam, which slowly trickles out later, and which is not collected, hardens to a black mass on the trunk, and is used by hunters for rubbing their dogs for skin-diseases and itch.

A speciality of Trinidad is the so-called Angostura bitters, which is only manufactured in the Port of Spain, and is exported in very large quantities. The secret of the preparation is strictly guarded by the Siegert family, to whom it belongs. Probably all the ingredients of the bitters come from Trinidad itself. The so-called Angostura hark (known as *corteza de cuspa* in Venezuela) is said to be derived from *Galipea officinalis*, a tree growing in the Orinoco delta, but is not imported into Trinidad. The export of bitters in 1896 amounted to the value of 632,920m.; in 1897, 5,558 gals., at a value of 11,160m., were exported to Germany; and in 1898, 6,534½ gals., at a value of 13,700m.

Grenada is the only island in the West Indies in which nutmeg-cultivation is carried on extensively.

In Venezuela the coconut-palm is planted everywhere along the coast in lesser or greater quantities. The largest plantation is that of Fricoy et Cie., near Puerto Cabello. This is connected with a soap and box factory, the products of which are sold in Venezuela itself. The nuts are opened by a machine which works very well indeed, manufactured by Joseph Baker & Son of Liverpool (coconut splitting and breaking machine). A fully-grown tree supplies on an average eighty nuts yearly. The wood for the soap-boxes is produced by *Hura crepitans*. Many coconuts are cultivated near Cumana, and the oil is manufactured there into soap. The export is scarcely worth mentioning. Of medicines and drugs the following are exported:—Cinchona-bark; this kind does not contain a very large amount of quinine, and is said to be derived from *Cinchona lucuyensis* and *C. cordifolia* var. *rotundifolia*; simaruba-bark from *Simaruba officinalis*; copaiba balsam; tonka beans; and sabadilla from *Schaefferia officinale*. A kind of gum is obtained from *Peirescia Guamacho*, and divi-divi, the fruits of *Cesalpinia coriaria*, are used for dyeing-purposes.

While in Mexico in April the author took a trip one day by train to Jalapa, from which the drug takes its name. This little town, well laid out, with a cathedral and a Government palace, made a very favourable impression. The climate of Jalapa is excellent: it is everlasting spring. All European vegetables, strawberries, mulberries, &c., thrive excellently. Liquidambar-trees are plentiful. The jalap-root, *Ipomaea purga*, also called "Purga," was not to be found at that period of the year.

In the course of his journey Dr. Preuss made a large collection of drugs, spices, and other produce, besides obtaining dried and fresh botanical specimens, many of the last-named being intended for experimental cultivation in the colonies. Complete lists of these collections are given as an appendix to the volume, and the specimens themselves have been deposited in the Royal Botanical Museum at Berlin. Dr. Preuss's book has been produced by the Department in exceptionally elegant form, and the figure of a cocoa-branch which illuminates the cover is an index to the direction in which the German colonial efforts are to go; for there is little doubt that the consumption of chocolate and cocoa is still in its infancy, although they have been the Spanish equivalent of tea for centuries.

WHOOPIING-COUGH REMEDY WANTED.

Mr. C. F. Le Hunte, in his annual report on British New Guinea for 1900, says that whooping-cough was introduced by two white children, and lives innumerable have been and are being sacrificed. As there was no medical officer at Samarai, where the disease broke out, the malady spread with frightful rapidity and swept first the coast and afterwards the interior. But the mischief does not end there says Mr. Le Hunte, for as each village is attacked, and as no death can, in the belief of the native, be the result of any natural cause, but must have been compassed by some unknown enemy who can only be discovered by witchcraft, the sorcerer is at once consulted, and some unfortunate village of some other tribe is designated as the culprit, and a midnight massacre of innocent people is the result.

MOTHER-TINCTURES.

At the recent British Homœopathic Congress Dr. Proctor called attention to a case where a lady administered aconite and bryonia in mother-tincture strength to a child of six, for

a cough. The child became delirious after a few doses. The chemist supplied the mother-tincture without regard to the youth of the patient, and Dr. Proctor suggests that the Homœopathic Society might be of service to chemists in giving them a scale of doses. It was suggested that homœopaths be asked to fix the amount of dilution they think desirable against a list of medicines, and let the Society strike the average. One speaker thought that No. 3 aconite should be the maximum for retailing. The proposition met with the support of the meeting, and should result in a useful guide to the safest strength of homœopathic medicines for retail trade.

THE MANDRAKE LEGEND.

There were exhibited at the General Italian Exhibition at Turin, in 1898, a unique collection of documents from the great Italian libraries on medicine and botany. Signor Giacosa, who was instrumental in forming the exhibit, has just published a complete descriptive catalogue, which gives extracts from some of these rare manuscripts. We are indebted to *Nature* for the translation of the following reference to mandrake from a ninth century MS.:

Mandragora is a plant which the poets call *anthropomereas* [sic], since it has a root shaped like a man. It is given in wine to those who wish to undergo a surgical operation safely, as when stupefied by it they feel no pain. When you come to it you will recognise it because it shines at night like a lamp. When you see its head you must cut round it with a knife lest it should escape. For such is its virtue that on the approach of an impure man it quickly flees before him. Therefore you dig round it with a knife, which must not touch the plant, and carefully remove the earth with an ivory spade. And when you see the hand and foot of the herb, tie round it a new cord and fasten the cord to the neck of a dog which has been kept fasting, and a little way off place a piece of bread so that the dog (trying to seize the bread) may pull up the herb. But if you do not wish to kill the dog, since the herb has such a divine power that it kills in an instant whoever pulls it up, proceed as follows: Make a snare of a long rod, and tie the cord which is fastened to the herb to the top of the rod, and bend it down; so that when the rod springs up by its own force it will pull up the herb mandragora.

Josephus and others taught that the plant caused the death of whoever pulled it up, hence the employment of a dog for the purpose.

Anti-Scentic.

[A theory has recently been advanced in the *Lancet* that the practice of using scents is not a useless one, inasmuch as the scents have antiseptic properties due to the spirit and the essential oils dissolved in them.]

Often in the train or highway, when I pass some stylish maiden,
As I journey to the city or parade the busy street,
All the atmosphere is stilled, and the air seems overlaid
With a smell that I can never look upon as fresh or sweet.

Though a worthy poet tells us (Tennyson, I think, or Homer)—
"E'en the homely farm can teach us there is something in de-
scent;"

I would rather own an oil-shop with attendant strong aroma,
Than a modern maiden's costume, scented to its full extent.

Yea, I'd rather sniff the cupboard, where we store the noisome
gases,

H₂S and divers compounds, none would classify as sweet,
Than be forced to sadly suffer, while the strongly-scented lasses
Spread around a sickly odour, filling up the bus and street.

Though the spirit and the oil that gives the odour, so they reason,
Have an antiseptic action in preventing fell disease,
I would rather have the small-pox, or the typhoid for a season,
Than be forced to undergo such dreadful remedies as these.

W. H. A.

A LACONIC CONVERSATION IN ONE OF THE COLONIES.—
One sheep-farmer rode up to another and said: "Morning!
My horse is ill; what did you give yours for gripes?"
"Kerosene," replied the other. The conversation was
resumed a week later: "I gave my horse kerosene, and he
died." "So did mine," said the other.

A Christmas-eve Prescription.

CHRISTMAS EVE had been a long and trying day at my newly acquired business, and I was not sorry when 11 o'clock came and I could close the shop.

I must have fallen into a doze as I sat in my cosy sitting-room, for I started as the night-bell rang. Fearing a run-away ring, I waited for a second summons, as to-night I certainly did not feel inclined to hurry downstairs. But as after half a minute the bell sounded again, I went down, and, opening the shop-door, saw a tall man standing in the pouring rain. I moved back for him to enter, and as he did so I turned up the light, which, falling on him revealed a well-dressed man, but with an expression on his face suggesting much suffering and despair. He apologised for troubling me, and asked me to make up a prescription which he handed me. He was suffering, he said, from severe neuralgia, and, changing trains at the junction, had just time to get his usual prescription refilled before continuing his journey. I hastened to dispense the mixture, and when I had finished advanced to the front counter so as to speak to my strange customer while I wrapped it up. As I did so he stood up, and requested me not to trouble about paper, as he would be taking a dose at once. He laid down half-a-sovereign, and as I handed him his change I saw with a thrill of horror that he had emptied the contents of the bottle down his throat. It was an 8-oz. tablespoon mixture, each dose containing 7 minims of liq. strych. hyd., so that he had swallowed a grain of strychnine. He put the empty bottle down on the counter and looked at me with an awful expression of hopelessness on his face. I tried to speak, but could not, and as he sank into the chair I rushed to the door in the almost vain hope of getting help. I knew that in a few moments he would be beyond recovery unless vigorous measures were adopted to save him. I snatched open the door and hurried into the rain, and to my relief fell into the arms of a policeman. In spite of my terror I could not help thinking what an exception he was to be in the very spot when he was wanted. His presence enabled me to find my tongue. And I remember the clock striking 12 as I spoke.

"Quick!" I said; "a man's swallowed poison. Come inside!"

He leisurely turned his face towards the door, and I, knowing how impossible it is for a constable to quicken his pace, seized his arm and pulled him into the shop.

The stranger had vanished. The empty bottle stood on the counter.

"He must have dragged himself in the dispensary," I cried. "Quick—quick!"

But though we turned the bull's-eye into every corner of the place, not a vestige of him could we see.

"He cannot have gone out through the door," I said.

"Nobody but yourself came out, sir—that I'll swear," answered the policeman.

"But he was in this very chair when I came out."

"Are you quite sure, sir, you wasn't having a nap?"—

"My good fellow, here's the prescription on the desk; here's the half-sovereign on the counter."

"Well, we'd better lock the door and search the house, sir."

We did, but not a trace of the mysterious visitor was to be seen.

There was nothing more to be done but to let the policeman go. He was evidently convinced I had been dreaming. I locked him out, and, returning to the comfort of the fire, listened to his steady tramp and the rattling of the doors as he tried them in his progress down the road. I was to spend the Christmas Day with some friends on the other side of London, and I knew my story would not be received sympathetically at their table. How I longed for some friendly ear into which I could pour my trouble!

Next day I was still a bit shaky from my nocturnal experience, and, as I had plenty of time, I determined to walk a good part of the way, especially as the sky had cleared and there had been a slight frost. I had not gone more than three or four miles when a 'bus overtook me, on the top of which, to my delight, was seated old Forrester, the man from whom I

bought the business. I jumped on the 'bus, and seated myself beside him. As soon as he saw me, he said:

"Halloa, Stanton, how's trade?"

"Never mind trade, old fellow; I've something else to tell you."

I gave him an account of my experience of the previous night. He listened attentively, without moving a muscle. The 'bus pulled up at the entrance to a railway-station, and Forrester got down, having to finish his journey by rail. I followed him on to the pavement, and we shook hands.

"It was just 12 o'clock, wasn't it?" he asked.

"Just," I said.

"Yes," he replied, perfectly unmoved; "he always comes at that time on Christmas Eve."

"Good heavens, man," I exclaimed, "you never mentioned it when you were selling me the business!"

"No; and you won't mention it when you are selling the business," he replied; and he passed through the barrier.

W. H. V. (83/62.)

Trade-Marks Applied For.

Objections to the registration of any of the undermentioned applications should be lodged with C. N. Dalton, Esq., C.B., Comptroller-General of Patents, Designs, and Trade-marks, at the Patent Office, 25 Southampton Buildings, Chancery Lane, London, W.C., within one month of the dates mentioned. The objection must be stated on Trade-marks Form J, cost 1s., obtainable through any money-order office.

From the "Trade-marks Journal," December 11, 1901.)

"SPARKLING PHOSFERRADE," and other wording on label (essential particulars are the snow crystal devices and word "Phosferrade"); for an aerated beverage. By Reynolds & Branson (Limited), 14 Commercial Street, Leeds. 240,812.

"CHARMIDES" (in script); for toilet-preparations (not for the hair). By Ellen H. Winchcombe, 26 Forehaw Road, West Brompton, S.W. 239,364.

"PRESTOLENE" (no claim for "Presto"); for a toilet-preparation for the hair. By T. Douglas, Croftamie, Drymen Station, N.B. 240,203.

"GOLDEN REEF"; for perfumery. By the Vinolia Company (Limited), Crescent, N.W. 241,338.

Figure of an owl; for optical appliances. By J. Aitchison, 47 Fleet Street, E.C. 241,693.

(From the "Trade-marks Journal," December 18, 1901.)

"CALAITHINE" (no claim for "Calaité"); for goods in Class 1. By the Badische Anilin & Soda Fabrik, Friesenheimer Landstrasse, Ludwigshafen-on-Rhine. 240,929.

"DROMINE"; for a liquid chemical preparation used for copying photographs, &c. By C. H. Jerrard, 23 High Street, East Ham. 239,541.

"STIGNIC"; for goods in Class 1. By Stephens & Co., Kidwelly, S. Wales. 241,736.

"MONKEE"; for a medicinal preparation for human use. By Kate Senior, herbalist, 8 Waterloo Street, Hull. 240,729.

"ONDA"; for chemical substances for use in medicine and pharmacy. By Deutsche Nahrungsmittel-Werke Berlin, Gesellschaft mit Beschränkter Haftung, Berlin, Magdeburger Platz 4 & Saegen nr. Strehlen Schlesien Grünkartauer Chaussee. 241,022.

"SALOCHIN" (no claim for "Sal"); pharmaceutical products. By Vereinigte Chemiefabriken, Zimmer & Co., Gesellschaft mit Beschränkter Haftung, 46 Darmstädter Landstrasse, Frankfurt-on-Main. 241,250.

"ARMOURITA"; for goods in Class 3. By Armour & Co., Chicago and King Street, West Smithfield, E.C. 241,334.

"MAXONIA"; medicine for human use. By Uriah Wood, chemist, 145 Front Street, Arnold, Notts. 241,361.

"RAMPART"; for chemical substance for use in medicine and pharmacy, and for substances used as food. By Brown Brothers & Co., manufacturing chemists, 35 and 37 Washington Street, Glasgow. 242,185 and 242,186.

"AUTERFONT"; for apparatus for manufacture of aerated waters. By Lea & McMurray, 83 Jamaica Street, Glasgow. 241,392.

Novelties.

TENASITINE

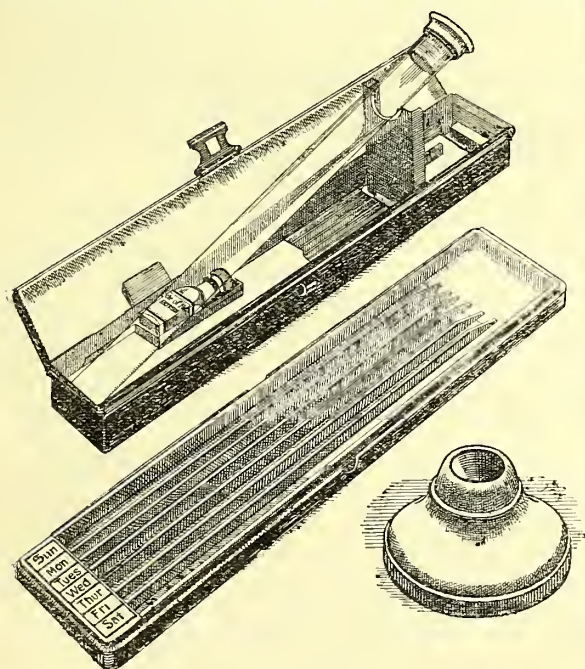
is the name applied by Messrs. Kay Brothers (Limited), Stockport, to a new cement put up in collapsible tubes. The cement "mends anything and everything," according to a statement on the label, and seems to be applicable to all those cases where liquid glue is usually employed. Tenasitine is a light-coloured syrupy liquid put up in 6d. and 1d. tubes, and is supplied in divided boxes or on showcards.

A NEW SUPPOSITORY.

A RECENT addition to the list of "Enule" rectal suppositories made by Messrs. Burroughs, Wellcome & Co., Snow Hill Buildings, E.C., is "Enule" morphine and belladonna. The active ingredients are, judging from the homogeneous appearance of the suppositories, evenly distributed, whilst the shape is one which ensures the suppository being retained. The "Enule" morphine and belladonna are packed in tinfoil sheaths in boxes of a dozen.

"COMPAC" CATHETER-CASE.

THE most up-to-date urethral specialists are exceedingly particular in regard to the asepticity of the catheters used by their patients. Nowadays, it has been computed, one man in four in the better stations of life has some bladder-trouble, such as enlargement of the prostate, which requires daily use of the catheter. To meet the requirements as to asepticity, Messrs. Croyden & Co., 45 Wigmore Street, W., have designed the case here illustrated. It consists of a



tray to hold a flexible-composition catheter for each day of the week, a long glass cylinder and supporting pedestal, and a bottleful of mercuric-chloride tablets, one of which is put into the cylinder and dissolved in as much water as will fill it. A catheter after use is washed with water, then placed in the cylinder of antiseptic solution, as shown in the illustration, or in the pedestal. There it may remain for an hour, or until the next day's catheter is to take its place. The catheters fit into spaces at the bottom of the japanned-metal case, and an extra box, also shown, is supplied. The case retails at a guinea without catheters.

CONDENSED EGG.

WE have lately been examining the egg-products which are being placed on the market by the Condensed-egg Syndicate (Limited), 19 Goulton Road, Hackney, N.E. There are three separate articles containing (1) whites of the egg, (2) yolks of the egg, and (3) the entire contents of the egg. These appear to have been mixed with sugar and subjected to a process by which some of the water has been extracted. No chemical preservative is present, and if heat has been used it has not been sufficient to coagulate albumen, the product remaining fluid. Obviously the greatest use for the articles is in pastry-making, but there is a field for condensed egg in invalid cookery. The sugar present does not interfere with the pharmaceutical uses of condensed egg in making cod-liver oil emulsion or white oils. The article, which is put up in bottles, will probably take as leading a place in the future as condensed milk does at present, and some chemists may be able to work up a profitable side-line in the article, especially if they are first in the field.

Produce Notes.

ADULTERATION OF PALM-KERNELS.

At a recent meeting of the African Trade Section of the Liverpool Chamber of Commerce attention was drawn to the large percentage of adulteration in palm-kernels exported from Lagos—viz., about 8½ per cent.—whereas in Sierra Leone, through the action of the merchants and the Government, the adulteration only amounts to about 2½ per cent. Statistics of the percentage of adulteration in the other African colonies were also given. The committee resolved to move in the matter, and a cable was sent to the Governor of Lagos asking him to enforce the Lagos Adulteration Act on a basis not exceeding 5 per cent. allowance for dirt and foreign matter.

BORNEO PEPPER, GAMBIER, &C.

Owing to the high prevailing prices the cultivation of pepper during the past five years has received considerable attention in Sarawak, and innumerable gardens have been opened. The export of pepper for 1900 was just under 2,000 tons; this, as well as gambier, is entirely in the hands of the Chinese, though Malays and Dyaks are now taking to the cultivation of the former. Gambier is doing better than it has done for many years, and extensive gardens are being opened, especially by the Borneo Company (Limited), who have some 3,000 acres under cultivation; 2,290 tons were exported in 1900. Among the exports from Sarawak were the following:—

		1899		1900	
		Quantity	Value	Quantity	Value
			£		£
Beeswax	... piculs	387½	2,331	147	881
Betel-nuts	... "	4,719½	2,538	3,565½	1,298
Camphor	... catties	264½	1,335	204½	609
Damar	... piculs	6,195½	1,042	5,029½	1,667
Antimony	... tons	325	5,272	85	2,173
Coprah	... piculs	6,726½	4,573	4,580	3,050
Cutch	... "	1,612½	1,197	1,260	1,039
Gambier	... "	26,282	16,805	36,624½	20,060
Pepper	... "	22,547½	85,918	32,967	125,442

SUNFLOWER-SEED OIL.

From Beyrout, under date of September 13, the American Consul reports that sunflower-seed oil is now becoming a favourite substitute for and adulterant of olive oil. Experiments made by German chemists have convinced them, it seems, of the availability of this cheap raw material. It is said to be convertible to many uses, and, besides having possibilities as a lamp oil, may be used for dyeing purposes, and will be of service in soap-making.

Gelatin as a Pill-excipient.

By GEORGE ROE.

I HAVE had on several occasions some difficulty in dispensing in pill-form powders which liquefy when mixed. With large quantities of powders of an absorbing nature it is possible to make the pills, but they are often so large that it is necessary to divide them into two, or send them out as boluses, the appearance of which would undoubtedly be a surprise to the prescriber, and certainly be viewed with wonder by the patient whose misfortune it is to have to take them. In the same category come essential oils, creosote, and carbolic acid, the literature on the dispensing of these being great but unsatisfactory. Sometimes the quantity ordered for each pill is too much for one to be made of a reasonable size with the better-known excipients. It is in consequence of this fact that I have tried to get a bit off the beaten track. It occurred to me that gelatin might be used for making pills, and if made pliable with the smallest amount of water and glycerin, the various liquids would probably mix with it when in the melted form, and as it cooled it could be massed and made into a workable condition with such powders, as is common under other circumstances. This is the form I used:—

Gelatin	...	...	...	3vj.
Glycerin	...	...	...	5ij.
Water	...	...	...	a sufficiency

The gelatin is tied in a hundle and soaked in warm water for a few minutes, drained, placed in a porcelain capsule, and dissolved with the glycerin by placing over hot water; then poured into a wide-mouthed bottle, and kept on the dispensing-counter ready for use.

As an example of how this excipient can be used, the following prescriptions were taken:—

Acid. carbolic.	...	...	...	gr. j.
Menthol.	...	...	...	gr. $\frac{1}{4}$.
Acid. salicylic.	...	...	...	gr. iij.

Ft. pil. Mitte xxiv.

Carbolic and menthol liquefy when mixed; the ordinary excipients make too large a pill. By carefully melting a few grains of the above stiff jelly on a small slab, adding the menthol and carbolic acid, well mixing, and finally massing with the salicylic acid, some calcium phosphate, and fullers' earth, a very satisfactory pill was made.

Acid. carbolic.	...	...	...	gr. xij.
Pulv. tragac.	...	...	...	q.s.
Sapo. alb.	...	...	...	q.s.
Triticæ farinæ	...	...	...	q.s.
Massæ gelatinæ	...	...	...	q.s.

Ft. pil. xij.

This made twelve pills, weighing in all 33 gr.

Acid. carbolic.	...	...	...	gr. xij.
Ol. cajuputi	...	...	...	℥xij.
Pulv. glycyrrhiz.	...	...	...	q.s.
Cimolæ terræ	...	...	...	q.s.
Massæ gelatinæ	...	...	...	q.s.

Ft. pil. xij.

Total weight, 57 gr.

Creosoti	...	...	...	℥xij.
Cimolæ terræ	...	...	...	q.s.
Pulv. saponis	...	...	...	q.s.
Massæ gelatinæ	...	...	...	q.s.

Ft. pil. vj.

Total weight, 34 gr.

Salol and menthol, phenol and menthol, and such like which, when mixed, liquefy, can be successfully made into

pills in the same way. It is quite a matter of fancy what powders he used to finally mass.

In 1899 I made pills in a similar manner, and the samples, carefully prepared, have not lost their shape, and easily crumble under moderate pressure. The above method is given as having been found useful when a few pills have had to be made which under ordinary treatment have been found difficult, and from the uniform results obtained I think it a process well worthy of the consideration of dispensers.

Elementary Dispensing-practice.

By JOSEPH INCE.

PILLULE, pills—(continued).

ONE would hardly imagine that a body like creosote would be prescribed in contact with another rich in oxygen or easily deoxidised. Such, unfortunately, is the case, as the following prescriptions, taken from actual medical practice, will show, no precaution being indicated:—

(5)				
R	Creosoti	...	...	℥x.
	Pulv. rhei	...	...	gr. xvj.
	Potass. chlorat.	...	...	gr. xiv.

M. ut fiant pilulæ x.

Let the creosote come in direct contact with the chlorate an explosive compound will be produced. The protective ingredient is powdered rhubarb; divide it into two equal parts; mix the chlorate with 8 gr. on paper with a palette-knife, and mix the creosote with the remaining 8 gr., in the mortar. With the gentlest pressure combine and mass the two with hydrated glycerin. Thus:—

A	{	Creosoti	...	...	...	℥x.
		Pulv. rhei	...	...	...	gr. viij.
B	{	Potass. chlorat.	...	...	...	gr. xiv.
		Pulv. rhei	...	...	...	gr. viij.

Mass A + B with hydrated glycerin.

A reducing-agent, or one containing excess of carbon, as honey or syrup, is inadmissible as an excipient when an explosive compound is concerned:—

(6)				
	Argenti nitrat.	...	...	gr. j.
	Creosoti	...	...	℥vj.

M. ut fiant pilulæ vj.

A protecting-powder must be introduced, thus:—

A	{	Argenti nitrat.	...	...	...	gr. j.
		Aquæ distillat.	...	...	...	℥j.
		Pulv. glycyrrh.	...	...	...	gr. ij.
B	{	Creosoti	...	...	...	℥vj.
		Pulv. sapon. animal.	...	...	...	gr. vj.

Combine A + B. (Lanoline if needed.)

(7)				
R	Argenti oxid.	...	...	gr. vj.
	Creosoti	...	...	gtt. vj.

M. fiant pilulæ vj.

Thus:—

A	{	Argenti oxid.	...	...	...	gr. vj.
		Pulv. glycyrrh.	...	...	...	gr. vj.
B	{	Creosoti	...	...	...	gtt. vj.
		Pulv. sapon. animal.	...	...	...	gr. vj.

Combine A + B. (Hydrated glycerin if needed.)

Carbolic-acid dispensing is two wide a subject to be discussed at length; the two following illustrations will be enough for general purposes:—

R	Acid. carbolic.	...	...	gr. vj.
	Pulv. glycyrrh.	...	...	gr. xij.
	Pulv. sapon. animal.	...	...	gr. vj.

M. ut fiant pilulæ vj.

R	Acid. carbolic.	...	...	gr. vj.
	Pulv. tragac.	...	...	gr. ij.
	Pulv. sapon. animal.	...	...	gr. iv.

M. ut fiant pilulæ vj.

A well-founded prejudice exists against using pure glycerin as an excipient; the mass is very readily made, but the pills

have a tendency to fall. It is essential with regard to all glycerin-made pills to add to the finished mass 1 or 2 gr. of powdered tragacanth; 1 gr. to a dozen is the usual quantity.

In making pepsin pills the prejudice may be disregarded since there is no better form than the following:—

Pepsini	...	...	...	gr. xviii.
Glycerini puri	...	...	...	q.s.
Pulv. tragacanthæ	...	...	...	gr. j.

M. fiat pilulæ vj.

Chloral hydrate may be dispensed as follows:—

R. Chloral hydrat.	...	...	...	gr. xxx.
Pulv. tragac.	...	...	...	gr. v.
Syrupi...	...	...	...	q.s.

Ut fiat pilulæ viij.

The British Pharmacopœia has a little dispensing of its own, and on page 252 instructs us how to make quinine pills.

Extract of nuxvomica is so varied in its action on a pill-mass, especially in combination with quinine, that many pharmacists prefer to add it last.

Crystalline substances, as iodide of potassium, should be always dissolved first, or partially so, to promote perfect diffusion through the mass; 1 minim of aqua destillata to 6 or 8 gr. is about the proportion. Mass with pulv. tragac. comp. and syrup. Always varnish and silver this class of pills. It may have been noticed to what an extent conserve of roses, formerly in such constant use, has disappeared; in so many cases it inconveniently increased bulk. It must not be imagined that the art of pill-making consists solely in the chase after some special excipient. This applies only in certain cases of difficult combination for which it is wise to be prepared.

For ordinary routine dispensing the simplest methods will be found the best; syrup, dilute glycerin, liquid honey, the soft extracts of malt and taraxacum, compound tragacanth powder, and the approved stock excipient in favour at any particular establishment will be generally sufficient.

[In a series of six articles, Mr. Ince will discuss the making of emulsions. We hope to insert the first one in our next issue, and to continue them weekly.—EDITOR.]

Recent Wills.

BECKITT.—Mr. John Hampden Beckitt, of Buxton, and of James Marshall Beckitt & Son, of Miles Platting, chemical-manufacturers, has left a gross estate of 48,217*l.* and a net personalty of 41,010*l.*

BROTHERS.—The will of the late Mr. John Brothers, chemist and druggist, of Woodcote, Hythe Road, Ashford, Kent (formerly of Southborough), who died on June 11, has been proved in the principal Registry. The executors are Mr. Frederick William Francis Ranger, 109 Broadway, Bexley Heath, registrar of births, and Mrs. Emily Susan Brothers, of Woodcote, widow of the deceased. The gross value of the estate is 2,025*l.* 2*s.*, and the net value 205*l.* 19*s.* 5*d.*

COX.—Mr. Harry Bertrand Cox, pharmaceutical chemist Shepton Mallet, who died on March 24, left a gross estate valued at 507*l.* 7*s.* 9*d.*, and a net personalty of 493*l.* 19*s.* 3*d.* The sole executrix is his widow, Mary Cox.

GILMAN.—The will (with one codicil) of Mr. Joseph Gilman, chemist and druggist and drysalter, Stafford Street, Birmingham, who died on April 25, has been proved at the Birmingham District Registry. The executors are Mr. John Gilbert Bradbury, 37 Temple Row, Birmingham, and Mr. James Henry Parkes, of Falcon Lodge, Sutton Coldfield, edge-tool manufacturer. The gross value of the estate is sworn at 25,148*l.* 18*s.* 1*d.*, and the net personalty 16,626*l.* 12*s.* 2*d.*

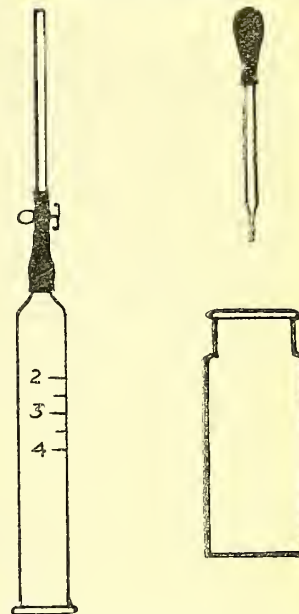
NESS.—Probate of the will of Mr. Thomas Ness, of the Black Bank Chemical-works, Darlington, who died on August 15, has been proved in the Durham District Registry, the total value of the estate being 33,878*l.* 10*s.* 8*d.* The deceased gave the whole of his property to trustees upon trust for his wife for her life, and afterwards upon various trusts for his children. He also empowered his trustees to carry on his business at Black Banks, Comondale, and elsewhere.

ROGERSON.—Probate of the will of the late Mr. Herbert Goldthorpe Rogerson, pharmaceutical chemist, Bradford, has been granted to Mrs. Jane Rogerson (widow), Dr. Clement Michael Rogerson, of Huddersfield (son), and William Joseph Rogerson, of Surrey, wholesale chemist. The gross estate is valued at 8,831*l.* 11*s.* 4*d.*, and the net personalty at 6,843*l.* 7*s.* 2*d.*

A Simple Nitrometer.

By J. A. HUGHES, Ph.C., F.C.S.

IN these days of spirit-of-nitre prosecutions it goes without saying that every chemist should periodically test his stock of that drug. With a view of encouraging those who do not know how to begin I have devised the following simple and readily available apparatus. Take a 1-oz. male glass syringe without the piston, and a glass feeding-bottle tube, and join together by a bit of indiarubber tubing, with just enough room between them to accommodate a pinchcock, such as is used with burettes, and which can be purchased for 2*d.* A small tie-clip does almost as well if two tiny bits of cork are tied on the business end to increase the force and closeness of the grip. Now turn the apparatus round with the wide end up and the clip in place, and pour in 2 dr. of water, accurately measured in a minim measure, and scratch a mark on the syringe with a bit of broken glass. In this way graduate the syringe from 2 to 4 dr. with the half-drachms marked in between.



Next get a perforated cork (a feeding-bottle wood-topped cork answers admirably) and insert in mouth of syringe. This is not only a safeguard to prevent escape of gas, but prevents the liquids in the syringe and bottle from mixing, and so enables one to use the same saline solution two or three times.

Lastly, provide a 1-oz. quinine-bottle and a small pipette, which latter any apprentice can make by holding a glass tube in a gas-jet and pulling out to a point when soft, then fitting with a "blind" teat. The apparatus is now complete.

To apply the test: Nearly fill the bottle with strong solution of common salt, and place the nitrometer into it, wide end down, at the same time opening the pinchcock. Suck up the solution until it is just above the rubber joint, and promptly close the pinchcock. Now raise the nitrometer, and if the liquid inside remains up in sight above the rubber joint and does not sink, the pinchcock is airtight and satisfactory; if not, make it so. Replace the filled nitrometer in the bottle. Next measure accurately 30 minims of the spirit to be tested and with great care, and without any unnecessary exposure to the air, transfer, with the pipette, to the glass tube of the nitrometer; then, by pinching the pinchcock, allow it to run into the nitrometer. It is very important that the level of the liquid in the nitrometer be kept higher than that in bottle, but this is ensured if my directions in making the apparatus have been carefully followed. Now swirl all the spirit out of the measure with 20 minims of water and transfer to the nitrometer. Next add in the same way 30 minims of solution of potassium iodide (44 gr. to the ounce), and, lastly, 30 minims of acid sulph. dil. There is no need to swirl the measure into the nitrometer in the case of the last two, but in each case be careful not to run the solution completely in—always leave the last drop in sight above the pinchcock. This is to ensure that no air enters the nitrometer, and that no gas escapes. Allow the apparatus to stand for a few minutes. Then raise the nitrometer until the liquid is the same level within and without, and read off the volume of gas. Half a drachm of the spirit of nitre ought to give from 2½ to 3½ dr. of gas—that is, from 5 to 7 vols. So long as it gives 5 vols. you are safe from persecution. The results thus obtained are accurate and trustworthy.



YES, that is so; but the Editor will not, I know, allow me space to tell how I happened to get six weeks off, the wherewithal, and the presumption to pay a visit to Brother Jonathan and his charming daughters. [Perfectly true. At this point, as the author has written on both sides of the paper, we sacrifice a lengthy account of his observations and reflections after passing the Needles—EDITOR.] On board, continues the author, you get along from day, to day eating and sleeping, and deriving a great amount of amusement watching the way *mal de mer* affects different individuals, especially ladies. But it is a long snake that has got no tail, and there comes a day when even to yourself life on the ocean wave and the saloon menu cease to appeal, and you suddenly lose all interest in everything, including yourself. All day long you lie meek and crushed in spirit, wondering whatever could have induced you to leave home, and pensively watching your steamer trunk travelling about your stateroom floor, while some cheerful soul in the lower berth regales you with the sad tale of how he lost his mother-in-law at sea. After a day or two of this you manage to pull round a bit, and the remaining days of your voyage are spent laid out on your deck-chair with a greenery-gallery face, and an intense desire to see the man who wrote "Ho for the rolling billow" brought up before the examiners at Bloomsbury Square. Eventually you sight the statue of Liberty, and at last you get past the exacting Customs officer.

Should you land early in the day the next thing you want to do is to get along from the harbour to Brooklyn Bridge, passing the Drug Club and the highest house in the world on the way, and there take the car to Rockaway Beach. Some of the prettiest girls in the world are to be found down there bathing. When you get there you are struck with the fact that the American bathing-girl is not much different from her sisters of the East, only she frequents the water less. Getting back to town again, you wander up Broadway, and find that the pharmacies of New York and London are not quite one and the same thing. One of the first you will observe has a large soda-water counter on one side, on the other the tobacco and cigar counter, and at the end you find the drug-counter, with the familiar bottles behind. Something in the demeanour of the assistants gives you the impression as you walk in that they are not nearly so smart as their English *confrères*. Of course you walk right inside—you do not know what for, but somehow your face seems to take the whole store in as you go in, and as you suddenly find yourself confronted by one of the assistants you casually ask the price of the nearest 5c. cigar you can find. He thereupon shows you his best 5c. cigars, and with a peculiar dialect which differs from Yorkshire he politely explains that if you take ten you can have them for 50c., a bargain which you immediately conclude, and then wander peacefully out again up Broadway.

Further up Broadway you find one of Hegeman's branches with a good window-display of toilet-soaps and coca-kola wine, with show-bottles hanging from the roof on chains. After this you come to Mr. Richard Hudnut's pharmacy, the front of which is certainly original, for it is filled with a huge octagonal showcase, in the centre of which upon a plinth is the famous Hudnut vase of Royal Vienna porcelain, and valued at something like \$6,000. Of course to enter the shop you pass round, so you cannot but stop to examine the vase carefully, which done, you find yourself inside the shop, and are struck with the delicacy of the perfume which pervades the atmosphere. This is "Zanzibar Lily," and you are told that the firm was the first to isolate the powerful perfume from this queen of lilies, and you have bought a bottle before you know where are. That was my fate, and I allowed the young man to sell me also a pair of special sleeping-gloves for

improving the hands and a box of perfumed flannel for sewing into dress waists, skirts, &c. Such things might come in handy I thought. After having a look at the beautiful silver fittings of the soda-fountain, I passed on the way out a neat case stocked with "Megyp," which is a preparation used 5,000 years ago by the Pharaohs, price \$3.50. Applied to the eyes by a graceful movement of the hand, this imparts a glory and splendour such as Cleopatra cast upon Mark Antony.

The Linton Pharmacy on Union Square is another worthy of note on the way up Broadway, as it contains the most complete collection of patent medicines that a retail house could hold. After that one comes to the house of Messrs. Caswell, Massey & Co., the windows of which were dressed with the usual flesh-gloves and sponges. Leave Broadway, and turning up Fifth Avenue, one comes ere long to Frazer's, which as yet is the first pharmaceutical-looking pharmacy you have seen. Nothing in the window, no perfumery or patent medicines inside, only assistants rushing round with prescriptions in their hands, and doctors purchasing anything medical. Samples of such preparations as "artoline," (a base for ointments), "bromodine" (sedative), "chloropeptine," and "eczemolle" (lotion), are plentiful, and after examining these you suddenly find that you have drifted unconsciously too far back to business, considering that you are on holiday.

Once more you find yourself outside looking about, and eventually you are sure to come to a roof-garden, a thing unknown in London. Here you may have music only or a full comic-opera bill, with talent of the kind that promotes thirst, and both hard and soft drinks are to be had. The average roof-garden holds nearly a thousand people. The audiences usually brim over with good humour.

This just about finishes the first day in New York, and when the nigger has let you down the elevator you seek your hotel and find your bedroom (a very difficult job), and there the heat is such that you wish your bed was on the roof-garden. [The article ends rather abruptly, but the writer mentioned in his covering letter that he was going on a bear-shooting expedition in the Rocky Mountains. Perhaps the bear is sub-editing the rest of the narrative.—EDITOR.]

A Situation Vacant.

SIR,—Replying to your advertisement in the *C. & D.*, I have a berth open which I hope will suit you. My business is strictly up-to-date cash-trade, with one or two adventurous branches. I want a smart, homely, intelligent young man who would be likely to stay with me for some time. The hours of business are 6 A.M. to 10.30 P.M., with a quarter of an hour for breakfast, twenty minutes for dinner, and ten minutes for tea. Furnished rooms provided, but the assistant usually does most of the cooking and all the washing up. He is also supposed to provide his own knife, fork, and spoon; plates and dishes not required, as we usually eat out of the pans. A woman comes in once a month to do the rough work, but the assistant makes his own bed and sees to the cleanliness of bedroom, &c. He also cleans the windows and shop-floor every morning and blackleads the grates twice a week. When trade is slack he may be required to deliver bills or take goods out on the truck. Baby has been teething lately, and if you should see your way to come here I have no doubt you would not mind looking after it during the night, as my wife says she cannot sleep on account of its crying. You would have plenty of amusement here, and if you are musically inclined I may mention that there is a violin of venerable appearance and surprisingly beautiful tone in my possession which you would be at liberty to use. I do not know whether you are acquainted with this district; if not, I may tell you that the climate is beautiful. We are able to see the sun every day in the year except when we have fog, which is not more than two days a week during winter on an average.

From the tone of your advertisement, which is essentially business-like, I am sure you would not mind helping with the washing, as washing days are, we find, very expensive, having a woman in to help.

The salary I usually pay my assistant is 15s. a week for first three years, and if satisfied as to his ability, industry, and honesty, I may advance him to 15s. 6d. per week. Should these terms suit you I shall be glad to hear from you per return. Or should you see your way to come down here for a personal interview railway-fare and other expenses would be paid—by yourself. Trusting to see or hear from you soon. I remain, yours sincerely,

SAMUEL SPENCER STONEYBROKE.

Eagle's Nest, Cornwall, November 13.

[This letter was received last month by a *C. & D.* subscriber.—EDITOR.]

American Notes.

THE annual meeting of the German Apothecaries' Society was held in New York on December 5, the principal business being the election of officers for the ensuing year. Mr. C. F. Schleussner was re-elected President.

COMPETITION FROM STREET vendors causes not a little irritation to New York drug stores. A leading and much advertised cough lozenge is being hawked in the streets at cut prices, and a hand cart displaying perfumes in fancy glass bottles has recently made its appearance.

POTASH IN OREGON.—Mr. H. V. Gates, of Hillsboro, Oregon, who has returned from a trip in Klamath and Lake Counties, reports in the *N.Y. Commercial* that fully two thousand potash claims have been filed east of Klamath Falls within the past few months. Each claim involves an outlay of \$100 per year in order to hold it.

NEW YORK DRUGGISTS get together some wonderful combination shaving sets. The main idea is to advertise the individual items which go to make them up and the purchaser gets a good deal more than his money's worth. The following comprises a typical set which is retailed for a few cents under the dollar:—Razor, shaving soap and pot, hanging strap, brush, talcum powder and a bottle of Witch Hazel, luxurious chin scraping is thus placed within the reach of all at a very moderate outlay.

INVENTORS OF NEW PROPRIETARY ARTICLES need not harass themselves and rack their brains with efforts to provide eye striking names for their specialties. The following advertisement appears in one of the New York dailies—"Catchy Names furnished for any novelty, address, &c." The announcement is an indication that there must be a demand for the services of the advertiser, and as the patent medicine trade is more prolific of novelties than any other line of business in the United States, doubtless the vendor of "Catchy Names" is competent to advise in this direction.

THE ALLIGATOR as a store window attraction no longer has it all his own way as a natural history display. A Broadway druggist is drawing crowds to a window which has been fitted up with moss, aquatic plants, pebbles, and water, in fact a pretty imitation of a mossy pool in a secluded spot. The pool is inhabited by several large sized frogs who blink upon the gaping crowd with solemn imperturbability. The display draws attention to a well known throat lozenge.

ANOTHER AQUATIC WINDOW display now being prepared for the holiday season is the original idea of a smart young druggist whose window displays have on several occasions been referred to in this column. After passing the usual examinations and serving a short term as an assistant, at the age of about 27 he acquired a finely located store in a popular suburban New Jersey town largely inhabited by New York business men. The store owing to mismanagement had (despite its splendid location opposite the railroad depot and adjoining the trolley waiting room) always been regarded as the least profitable in the town. By careful and painstaking detail work, attention to the Soda Fountain, local advertisement, and in window display especially he has in a short time made his store one of the most frequented in the town. His latest window device has for its main attraction a dozen fish bowls hung from the top of the window at various heights with brass chains. Each bowl contains eight or nine gold fish, water plants, pebbles and other accessories. The window is backed with pretty crepe paper and adorned with growing ferns. The floor of the window is set out with holiday novelties, perfumery, soaps, candies and kindred articles. The whole scheme is well illuminated with incandescent electric lights, and makes a most tasteful and attractive window. The fish bowls will be sold after the holidays, and will recoup the druggist for the bulk of his expenditure on the display.

CHARGE AGAINST AN APPRAISER.—According to the *N.Y. Commercial* serious charges have been preferred against an examiner in the drug division of the United States Appraisers' Stores at New York, and have been forwarded to the Treasury Department with a request for his removal. The name of

the implicated party is Isaac Raynor, and he is employed in examining and passing perfumes, essential oils, &c., one of the most important division in the Appraisers' stores, in point of revenue. Raynor, it is alleged, recently called on a firm of commission merchants and importers of perfumes, and made a proposition to that firm to the effect that he would pass certain perfumes, provided he was given a percentage of what thereby would be saved in duties. The importers notified the authorities and an investigation was instituted. The examiner made a general denial of the allegations against him, but rather than have any trouble over the matter wished to "resign" because of "ill health." This, however, will not be allowed, and the facts have been laid before the Department in Washington. Raynor was one of the most trusted employes in the service, having been recommended for the appointment by both appraiser Wakeman and Dr. Hammill, assistant Appraiser of the drug division.

AMERICAN SPONGES IN HUNGARY.—Mr. F. D. Chester, American Consul at Budapest, in a report on the sponge trade of Hungary, gives a few hints to American exporters of sponges. Up to now, he says, the bulk of the sponges on the local market, has been procured, either directly or indirectly, from Greece, Turkey and Persia, and sold as Greek sponges. American sponges are well spoken of on account of their comparative cheapness and good quality. The sponges for the Budapest trade ought to be in bales of from 20 to 30 kilos. (44 to 66 lbs.) in weight. The market is ready and willing to buy American sponges direct, one leading dealer, Mr. J. Behar Dánt, Erzsébet Körút 9, Budapest, expressing a desire to buy as much as 11,500 lbs. yearly. During 1899, the imports of sponges into the Kingdom of Hungary were valued at 433,400 crowns (17,700*l.*), but no direct shipments were received from the United States, the bulk coming from Austria and Germany. In this connection, it may be mentioned that sponges are now very scarce on the New York market. The sponge fishers are now at work off the coasts of Florida and Nassau, but muddy water and heavy rains have interfered with success. Not a pound of sponge, it is said, has been lifted since the October fisheries started and the American market is totally dependent upon the yield of these sponge grounds.

New Books.

Any book named in this list can be supplied post-free to any part of the world on receipt of the published price by the Publisher of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

- Barton, F. T. *Veterinary Manual for Horse-owners*. Illus. 7 $\frac{3}{4}$ x 5. Pp. 506. 10s. 6d. net. (Everett.)
- Bell, R. *Cancer: its Cause and Cure*. 7 $\frac{1}{2}$ x 4 $\frac{1}{2}$. Pp. 166. 5s. (R. L. Holmes.)
- Butler, G. R. *Diagnostics of Internal Medicine: Clinical Treatise for Use of Students and Practitioners of Medicine*. 9 $\frac{3}{8}$ x 5 $\frac{1}{2}$. Pp. 1,038. 25s. net. (H. Kimpton.)
- Hasluck, P. N. *Dynamos and Electric Motors: How to Make and Run them*. 7 x 4. Pp. 160. 1s. (Cassell.)
- Heermann, P. *Dyers' Materials: Introduction to Examination, Evaluation, Application, of the Most Important Substances Used in Dyeing, Bleaching, and Finishing*. 7 $\frac{1}{2}$ x 4 $\frac{3}{4}$. Pp. 158. 5s. net. (Scott & G.)
- Horns, A. H. *Mixed Metals; or, Metallic Alloys*. 7 x 4 $\frac{1}{2}$. Pp. 464. 6s. (Macmillan.)
- Hurst, G. H. *Painters' Colours, Oils, and Varnishes: a Practical Manual*. 7 $\frac{3}{8}$ x 5 $\frac{1}{4}$. Pp. 518. 12s. 6d. (Griffin.)
- Inglis, J. G. *The "Ideal" Office Reckoner*. 7 x 4 $\frac{1}{4}$ x 1 $\frac{1}{2}$. Pp. 900. 3s. 6d. (Gall & Inglis.)
- Lewkowitsch, J. *Laboratory Companion to Fats and Oils Industries*. 9 x 5 $\frac{1}{2}$. Pp. 167. 6s. net. (Macmillan.)
- Sternberg, G. M. *Text-book of Bacteriology*. Illus. 9 $\frac{3}{8}$ x 6 $\frac{3}{8}$. Pp. 720. 26s. (Churchill.)
- Year-book of Scientific and Learned Societies of Great Britain and Ireland*. Comprising lists of papers read from January, 1900, to June, 1901, before societies engaged in fourteen departments of research, with names of their authors. 7s. 6d. (Griffin.)

Medical Gleanings.

CATHETER-STERILISATION.

DR. BUCKSTON BROWNE advises patients who depend on catheters to adopt the following plan to prevent infection of the bladder. The patient requires a tube of antiseptic pellets (one of which, dissolved in a pint of boiled water, yields 1 in 1,000 of perchloride of mercury); a pint bottle; a glass tube 13 inches long, $1\frac{1}{4}$ inch in diameter, fitted with a cork and stand; a box divided into seven compartments, each compartment holding a gum-elastic or rubber catheter, and labelled after the days of the week, made of a cheap material so as to be burned when soiled and easily replaced, or of tin, and therefore easily purified by boiling; and a pot of plain white vaseline, or with the addition of 5 per cent. of oil of eucalyptus. During the night the catheter that has been used during the day is placed, after washing in pure water followed by soap and water, in the glass tube previously filled with antiseptic solution. Next morning the catheter is taken out of the antiseptic, rinsed in boiled water, dried, and put away in its special compartment. (See page 1043).

SUPRARENAL EXTRACT IN NASAL WORK.

DR. H. LAMBERT LOCK, in a recent address on advances in the treatment of diseases of the nose, spoke of the value of suprarenal-extract in all nasal-work. It increases the anæsthetic action of cocaine and prevents its absorption. It is a strong astringent to the nasal mucous-membrane, rendering it white and bloodless, so that operations may be performed on the nose without the loss of a drop of blood. To obtain the full effect the solution should be freshly prepared. Ten grains of extract of the dried gland should be dissolved in 100 minims of distilled water, filtered, and 10 gr. of cocaine added. Pledgets of wool soaked in this solution should be packed into the nose high up under the middle turbinate, and retained there for from twenty to thirty minutes to obtain the full action. If the frontal sinus be affected discharge soon commences to trickle down into the nose; should the antrum be at fault, the evacuation of the cavity may be facilitated by lowering the patient's head and bending it over towards the opposite side. Subsequently any hypertrophy or swelling should be removed, the depletion caused by the local blood-letting tending to prevent recurrence of the swelling.

CHLORAL-HYDRATE BLISTER.

At a meeting of the Paris Academy of Medicine a paper by M. Bonnet was read on the vesicating properties of chloral hydrate. This drug vesicates very rapidly and is applied in the following manner. It is spread upon diachylon plaster in the proportion of 3 grammes to a surface of 12 by 15 centimetres. The plaster is then applied to the skin which has been previously anointed with almond oil or vaseline. In about fifteen minutes the patient feels a sensation of warmth which increases gradually to burning. The plaster is then removed and the reddened part covered with cotton-wool. At the end of twenty or thirty minutes later a blister has risen and the patient goes to sleep—a fact which shows that with chloral hydrate, as well as with cantharides or any soluble substance, the vesicating agent is absorbed. The sleep produced by chloral hydrate is, however, less inconvenient than the cystitis produced by cantharides.

SUPERFLUOUS HAIR.

REFERENCE was made in the *C. & D.*, July 15, 1899, page 97, to the use of electrolysis in removing superfluous hair. Recently Dr. David Walsh has devised a combination of *x*-ray exposure and electrolysis for the same purpose. The earliest note that the *x*-rays caused shedding of hair was by Mr E. E. King, Toronto, in the *British Journal of Dermatology* in January, 1897. Since then Dr. Walsh has endeavoured to utilise this fact in combination with the electrolysis-needle. The following is an outline of the processes. Using the electrolysis-needle only the needle is connected with the negative pole of a battery yielding from 1 to 1.5 milliamperes, and the circuit is completed by pressing a sponge electrode saturated with warm salt water against the patient's skin. The circuit should not be completed

until after the needle is inserted into the hair-follicle and the current should be broken before the needle is removed. The operator must insert the needle as nearly as possible in the direction of the hair-follicle. It should be kept in place for 20 or 30 seconds until little bubbles of gas appear at the point of insertion. After the removal of the needle, if the operation has been successful, the hair can be removed with gentle traction by a pair of forceps. The combination of the two methods of focus-tube exposure and electrolysis is a great improvement where the growth is not too thick. The exposure to the focus-tube is made in the ordinary way and a week or ten days later, when the hair becomes loose, each hair is extracted and the electrolysis-needle is passed into the follicle. This method means that a large number of electrolytic punctures must be made in a small area. However, with a little management the removal may be made to extend over a couple of days, and in that way it is possible to remove, so to speak, alternate hairs. Sometimes a second exposure to the focus-tube is needed before the hairs become loosened. Mr. James Startin has since written to the *Lancet* that exposure to the Röntgen rays only, if carefully carried out in exposures of ten minutes on consecutive days for about a fortnight, at intervals of from two to three months, will generally effect a complete removal of hair. It is only right to add that Dr. A. T. Schofield found the hair reappear thicker and stronger a month after *x*-ray depilation.

TREATMENT OF CANCER.

MR. ALFRED COOPER, in an address on the present treatment of inoperable cancer, delivered before the West London Medico-Chirurgical Society, summarises the existing methods as follows:—

1. That in cases of inoperable sarcoma, especially the spindle-cell variety, the patient should have the option of Coley's fluid given to him, since a certain number of cases have been cured.
2. That in cases of inoperable cancer of the breast in women of about 40 years of age, in whom the menopause has not occurred, the operation of oophorectomy should be proposed, and this treatment may be combined with thyroid feeding.
3. That in cases of inoperable rodent ulcer, and in the superficial malignant ulceration in other parts, the Röntgen rays give a good hope of improvement.
4. That in case where these other methods are declined or are inapplicable the internal administration of celandine is worthy of trial, and when the case appears quite hopeless morphia should be pushed without hesitation.
5. Finally, I would suggest that before trying any of these remedies, the risk should be fully pointed out to the patient, that the faint hope that most of them afford should not be magnified, and that the discomfort of treatment should be fully discussed; in fact, the surgeon should not do more than offer the treatment, and leave the person to accept or receive it.

In regard to celandine (*Chelidonium majus*), attention has been recently drawn to it by Russian physicians. Dennisicoff gives $\frac{1}{2}$ gr. of the extract in peppermint-water, increasing the dose to 5 gr. in the twenty-four hours. If given hypodermically, the extract is diluted with distilled water, and 1 c.c. injected not oftener than once a week. Great benefit follows the exhibition of large and increasing doses of morphia in hopeless cases; it is quite common to give several grains of morphia each day.

CRAVING FOR MORPHINE OR SPIRITS.

Ammou bromidi	...	...	...	gr. v.
Ext. bellad. fl.	...	...	...	mij.
Ext. nuc. vom. fl.	...	...	...	mij.
Ext. cannabis ind. fl.	...	...	...	mij.
Aq. ad	...	...	...	3ij.

For a dose. To be taken four times a day.

IPECACUANHA IN PNEUMONIA.

WITH the object of depleting the lung and as a consequence so modifying its tissues that microbic infection is counteracted, Perreau has introduced the following method of treating pneumonia. A gramme of powdered ipecacuanha is mixed with 120 grammes of mucilage and a tablespoonful of the mixture given every hour for about eight hours. A certain amount of practice is necessary to avoid either vomiting or diarrhoea by lengthening the interval between the doses. The method is said to give very satisfactory results, especially if employed early in the course of the disease.

Practical Notes and Formulæ.

LINOLEUM-POLISHES.

1.				
Yellow ceresin	...	...	...	3ss.
Solid paraffin...	...	...	...	3iiss.
Boiled linseed oil	...	...	...	3iiss.
Oil of turpentine	...	...	...	3ij.
Oil-soluble cerotin orange	...	...	...	4 gr.
2.				
Palm oil	...	...	...	3iiss.
Carnauba wax	...	...	...	3v.
Yellow ceresin	...	...	...	3iiss.
Oil of turpentine	...	...	...	3iv.
Benzine	...	...	...	3iiss.
3.				
White ceresin	...	...	...	3j.
Solid paraffin...	...	...	...	3ij.
Oil of turpentine	...	...	...	3iv.
Benzine	...	...	...	3j.

—A. Seifens-Ztg.

TR. BENZ. CO.

AN exhaustive article on the extractive which should be found in *tinctura benzoini composita*, by Dr. Hill and Mr. J. F. Liverseege, was printed in the *Analyst* for November. From data given, the amount of the solid extract that should be present is calculated thus:—

B.P. Quantities		Extractive in	
	Grammes	Drug, per Cent.	Tincture
Benzoin	100	85	85
Prepared storax	75	80	60
Balsam tolu	25	90	22.5
Socotrine aloes	18.3	90	16.5
Per litre	218.3		184

The authors think the above statement justifies the adoption of a standard of 180 grammes per litre as reasonable. The extract is determined by evaporating 5 c.c. of the tincture to dryness on a water-bath in a German-silver dish, 3 inches in diameter with a flat bottom, and drying the residue three hours in a water-oven. In regard to the sp. gr. of the tincture, this in twenty-three samples varied from 0.891 to 0.906 (at 60° F.). That of a tincture prepared by the authors was 0.896. The sp. gr. of various samples noted in THE CHEMIST AND DRUGGIST has been 0.890 to 0.907.

ARISTOL OINTMENT.

BEFORE the American Pharmaceutical Association Mr. C. Osseward described the following as a quick method of making aristol ointment: Put 1 oz. of aristol in a dry mortar; add enough ether to form a paste; add 1 oz. of olive oil and make a smooth paste. In two hours the ether will have evaporated if the paste has been stirred several times. Keep the paste in a wide-mouthed, ground-stoppered amber bottle. In making an ointment from this paste remember that it is only 50 per cent. strength, and twice as much should be used as of aristol prescribed.

WALL-PAPER CLEANER.

Mix 4 oz. of powdered pumice-stone with 2 lbs. of flour, and with water make into a stiff dough. Form the dough into rolls 2 inches in diameter and 6 inches long, sew each roll separately into a cotton cloth, then boil for forty or fifty minutes, so as to render the mass firm. Allow to stand for several hours, remove the outer crust, and they are ready for use. The wall-paper is first dusted with a clean cloth, and then lightly rubbed with the wall-cleaner.—*Druggists' Circular*.

NITRITE-OF-AMYL CAPSULES.

INTO a No. 2 empty gelatin capsule introduce a minute pellet of absorbent cotton, and drop upon it 1, 2, or 3 drops (as may be required) of amyl nitrite from a burette. Put on the cover, having first moistened its inner rim with a little mucilage or melted gelatin. Enclose this capsule in a No. 1, and this in a No. 0 one, sealing each cover in the same manner. It will require a little force to get one capsule to enter the other, but by applying a trace of oil to the smaller, the difficulty will be overcome. These capsules should be put up in small, wide-mouth bottles, securely stoppered, and will keep serviceable for a long time. For use one is cut open with a pair of scissors.—*Merck's Report*.

VIOLET PERFUMES.

THE following are German formulæ, all the quantities to be taken by weight:—

Ionone mixture (5 grammes of 10-per-cent. solution in 1 kilo. of spirit)	...	500 parts
Artificial rose-oil solution (1 in 12)	...	100 parts
Solution of jasmine (Schimmel, 1 in 10)	...	100 parts
Solution of orris (concrete 1 in 20)	...	300 parts
Solution of orange (Heine, 1 in 10)	...	30 parts
Solution of artificial musk (1 in 20)	...	5 parts
Ylang ylang (Schimmel's artificial)	...	1 part
Tincture of benzoin	...	20 parts

Mix.

Ionone mixture (as above)	...	600 parts
Solution of orris oil	...	300 parts
Solution of cassie (Heine, 1 in 20)	...	100 parts
Solution of vanillin	...	50 parts
Tincture of benzoin	...	10 parts
Solution of artificial musk	...	5 parts

Mix.

SWEETENED CASTOR OIL.

Alcohol	...	3iv.
Saccharin	...	gr. xij.
Oil of peppermint (or cassia)	...	mxx.
Castor oil to make	...	Oj.

MANGANESE SYRUP.

Sugar, in coarse powder	...	10 oz.
Potassium permanganate (3-per-cent. solution)	...	6 oz.

Allow to stand for three or four days, and dissolve without heat.

The syrup contains nearly 2 gr. of oxide of manganese in each ounce. If necessary it can be prepared double strength.—*La Pharmacie*.

RENDERING ACCOUNTS.

A WRITER in the *Pharmaceutical Era* says he makes a practice of sending accounts every month to his customers, even if only a few pence is owing. Another plan adopted by the same contributor will be new to many of our readers. "When an account reaches quite a figure, has been running a long time, and I see the customer is avoiding me because of it, I make him a proposition to settle for 50c., sometimes even 25c., on the dollar. The offer is usually accepted. Thus I get his trade back, and he is not apt to ask for more credit, but pays as he goes. On the other hand, I am better off, having received one-half of what others would give up as a bad debt."

NETTLE HAIR-WASH.

1 lb. of fresh common nettle is well chopped up and macerated for a week in a pint of 90-per-cent. alcohol, then pressed and filtered. To the filtrate add Peru balsam 15 drops, oil of bergamot 10 drops, and 5 drops each of oil of ylang-ylang, tincture of musk, and otto of rose, with 3 gr. of heliotropin.

THE ACID-SHELF.

MR. HOSTELLEY, in the *Druggists' Circular*, says a glass shelf is much more practical and satisfactory in every way than a wooden shelf for bottles containing acids and alkalis. An alternative plan is to have a small glass plate under each acid-bottle.

Veterinary Notes.

By M.R.C.V.S.

Diseases of Poultry.

THE attitude of the public to the chemist's shop is that of "inquire within upon everything"; hence the free consultation which is expected when poor pussy has come off second best in an encounter with a fellow feline. Whether the cat or the canary has met with an injury, it seems to be assumed that the chemist must not only know how to make things right, but be willing to do the needful for a very small honorarium. He must diagnose avian tuberculosis in the parrot, and advise the farmer on market-day when he tells of hens falling dead off the perch, or being egg-bonnd, or refusing to lay a profitable number of eggs, when no such excuse can be made for them. Some of our readers, with an enthusiasm for bird and beast which perpetual imprisonment in the pharmacy has never quenched, have both a practical and scientific knowledge of birds' diseases, which may be turned to profit if they choose. It is not for such that I presume to offer a few notes in the pages of THE CHEMIST AND DRUGGIST, but for those who may have allowed opportunities to pass for want of a more intimate knowledge of the subject of bird-ailments. Why should the fancier have to seek advice of the bird-seller, whose acquaintance with medicine is of the slightest? The diseases of birds do not necessitate making visits; the subjects can be brought to the pharmacy—and will be brought—as soon as clients are made to understand that the proprietor has studied their ailments, and knows how to treat the patients and advise the owner.

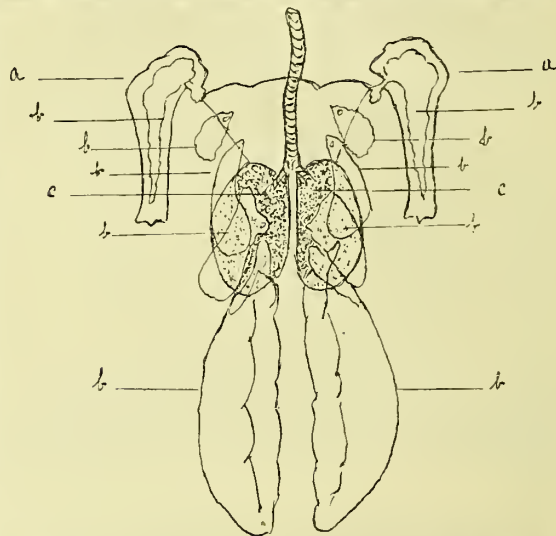
THE STRUCTURE OF BIRDS.

I presume that most chemists are familiar in a general way with the anatomy and physiology of man and the domesticated animals. Huxley's "Physiology" is a book which everyone should read when he is done with the Minor. The structure of birds is in some respects nearly allied to that of reptiles. Evolutionists are agreed that birds are descended from some creature of the reptilian group. The respiratory apparatus in birds differs even more than the digestive from that of other warm-blooded creatures, inasmuch as the lungs are not enclosed in smooth glistening capsules or pleura, secreting a lubricant of their own, and suspended from the roof of the body or resting upon a diaphragm, but they are firmly attached to the back and ribs, and adhere to the interspaces. The bronchi do not terminate in the lung substance, but communicate with some nine air-sacs, which are curiously disposed, and occupy a large area while the bird is alive; so large are these sacs that a dead bird, with them deflated, appears to weigh very much more than it did when alive. As a matter of avoirdupois, it does not weigh either more or less until it has been dead long enough for some evaporation to have taken place. "Dead weight" gives a sensation to the hand of greater ponderosity, but I base my statement upon scale weighings.

The accompanying diagram represents with approximate accuracy the relative position of the air-sacs. It will be seen that those occupying the abdominal cavity are far larger than the others, and account for the otherwise curious fact that a bird wounded in the belly is often seen to inspire and expire through the wound. The greater bones are filled to a large extent with air-sacs instead of marrow, and as these give buoyancy they are more developed in the birds of passage and homing pigeons than in the full-breasted barn-yard fowl, bred for generations to walk up to his food, and not to seek it in distant countries when the supply runs short. I have often wounded the lungs of birds in making capons, with apparently but little inconvenience to the subjects, and noted the breathing which goes on under the wing (where the operation is performed), until a clot seals up the orifice. Unless a vessel large enough to cause extensive hæmorrhage into the lungs (thereby choking them), is divided, the birds recover without any appreciable illness. Birds shot through the arm-bone (humerus) may be seen to breathe through the orifice, and will in almost every instance recover if surgically dressed.

The bird's mouth is not provided with means to triturate the food, neither are there salivary glands to pour out a

fluid containing a ferment with which to begin the process of digestion. The graminivorous birds, with which we have chiefly to deal, or those whose food consists partly of insects and occasionally of flesh, only take into their mouths such portions as they can deglutarate. The domestic fowl will pick a bone very clean, but there is no grinding motion, and any lateral use of the mandibles which may be observed is with the object of freeing some portion which has fixed itself in one or other of the angles of the mouth. I may say *en*



passant that vultures do not masticate the huge masses of corruption in which they gloat, and to which they occasionally succumb, like a greedy dog with a bone that cannot be swallowed.

The œsophagus of birds is relatively large, and pellets of food which would more than fill the lumen when dead are easily disposed of in life, owing to the extensile properties of this musculo-membranous tube and its powerful contractions above and behind the body during the act of swallowing. The crop is an enormous dilatation of the gullet, whose walls bear no proportional thickness to the tube above, and of which it is a continuation. In ruminants we have, in the rumen or first stomach, a somewhat similar arrangement to the crop, which also serves as a primary receptacle for hastily gathered food to be dealt with at leisure. The ruminant regurgitates for further mastication; but in the bird the contents of the crop after maceration therein pass on to the proventriculus, or succentric ventricle, to undergo digestion, or, perhaps, I should say ingestion, with the secretions of that organ, since the process is not complete until dealt with by the gizzard and duodenal fluids. The viscus has no exact parallel among the mammalia, but the third stomach of ruminants, with its close leaves and comparatively dry contents, has been compared to it by some anatomists. It is in the nature of a mill, with opposing grindstones. Its substance is powerfully muscular, with much dense fibrous tissue, and its lining so tough and rough that, when dried, it might serve for a corn-rubber. In grain-feeding birds it is most developed, and least in the flesh-eaters. The grit and small stones which do not suffer any change in the crop or proventriculus are employed in the gizzard to comminute the food saturated with digestive juices. Chemists are all familiar with the solvent properties of "ingluvin," which is the chief product of the gizzard. The food, which may be said to have been truly masticated in the gizzard, is passed on as a pasty substance into the small intestine, where it receives the same kind of secretions from the liver, pancreas, and intestinal glands as is the case with quadrupeds, and passes into the circulation by a similar arrangement. The remaining chief peculiarity of birds is the passing of solid urea from the kidneys, in lieu of the fluid containing it in solution. The white or greyish substance on the top of each defæcation consists practically of solid urea. Having thus given a fair outline of the internal economy of birds, I shall in the next article deal with some of the troubles that disorganise it.

Argentine Pharmacy.

BUENOS AYRES, with a population of 800,000, has 300 pharmacies, mostly owned by unqualified people, and "regenteadas," or managed, by a qualified chemist, who, as a rule, gets \$100 monthly, and the owners of pharmacies are at liberty to put on the labels, "Botica el Aguila" (the Eagle Pharmacy, or any other funny name), "Pharmacist Mr. So-and-So."

It struck my attention, when I first landed here, to see "botica Inglesa" (English pharmacy), and I soon found out that such "botica Inglesa" was everything but an English pharmacy. To begin with, it was owned by Neapolitans who scarcely knew the official language (Spanish). There are, however, some very good English chemists—Mr. James Gibson (a well-known chemist of this Republic), Messrs. Kelly Brothers, Murray & Aikens, Murray & Seedorf, and Cranwell & Hausen. Mr. James Gibson is the owner of the two best pharmacies in the Republic, and employs a number of assistants. The business is conducted in English style, the shop-hours being 8 A.M. to 10 P.M.; each assistant has two evenings off every week, a week holiday yearly, and, as Christmas-box, half the amount of his salary. Mr. Gibson has a wholesale as well as a retail business, Mr. Edward A. Parker being the general manager in charge of the wholesale business. Mr. Gibson has always taken a great interest in the welfare of the pharmaceutical profession, and is the Chairman of the Board of Examiners of Chemists' Assistants. It may interest English students to know what this examination is like. Candidates must be persons of good address, and have good practical experience in pharmacy, as well as up-to-date knowledge of theory. The following is an account of the work which I had from a candidate recently:—

How do you prepare liquor Fowler, B.P.? What reaction takes place?

What is opium? Name all the official preparations of opium, and state the amount of morphia in five drops laudanum of Sydenham.

What is the difference between a minim and a grain?

A knowledge of the metric and imperial systems of weights and measures was required, and questions were given about sterilisation, doses, processes, incompatibility, antidotes, &c. The following prescriptions were given to prepare:—

Syr. ferri iodid., Ph. Brit. ... 3ij.

Full explanation as to process; the amount of ferrous iodide in 3j.

Calomel ... 2 grammes
Gum acacia ... q.s.

Divide in ten pills.

The candidate used manna as an excipient, well knowing that mucilage would make a cement.

Iodised cod-liver oil... 100 grammes

Iodoform bougies.

Pil. ferri iodidi ... 10 centigrammes

Tales xx., varnished.

Serum Hoyer (sterilised).

Ammon. sesquicarb. ... 5ss.
Spt. aether. nit. ... 3j.
Tr. aurant. ... 3j.
Syr. iolut. ... 3ss.
Syr. scillae ... 3ss.
Inf. senegae ad ... 3viij.

M.S.A.

On the occasion of this examination, out of seventy-six candidates examined only sixteen passed. (197/53)

South American Notes.

INTRODUCTION OF THE DECIMAL SYSTEM.

THE writer of these lines was in Paraguay on January 1, 1901, when the decimal system came into use. The previous weights and measures were almost identical with

those now in use in Great Britain and Ireland. The Paraguayans are for the most part illiterate, and slow to adopt any innovations. During January there was a good deal of complaint and difficulty in adapting themselves to the new circumstances, but in less than two months they had become thoroughly accustomed to the change, and even learned to prefer it to the antiquated and cumbrous system formerly in use. These remarks apply to the lower classes; among the upper classes there was still less delay in accommodating themselves to the new circumstances, and now no one wishes to go back to the old system, since the advantages of the new one are abundantly manifest. These remarks are made in view of the opinion, apparently held by many people in England, that the adoption of the decimal system would entail an enormous amount of inconvenience, and that a great length of time would be necessary before the public could accustom themselves to the altered circumstances. One thing is certain: that the decimal system will never come into general use in England until it is made compulsory; to make its use merely optional is worse than useless.

CONTRABAND TRADE IN CHEMICAL GOODS.

In Venezuela there is a very heavy duty on common salt, while fruit-salt, of which a large amount is consumed, is introduced free. The Customs authorities not long ago were astonished to find that an immense amount of fruit-salt was imported. The sudden increase in the importation of this article at last excited the suspicion of the officials, and on examination it was found that the fruit-salt was really the common table article, done up in bottles to resemble the well-known "Eco." Another case, which applies to South American products imported into Europe, is also worth notice. A firm in Paraguay had been in the habit of exporting large quantities of quebracho to Germany, where it is much used for making tanning-extract. On its arrival in Germany it is subject to a heavy duty, but it was found possible to evade this by shipping it in the form of railway-sleepers, which are admitted on payment of a slight duty. The logs, imported in the raw state, were actually utilised as railway-sleepers, but being in the rough it was necessary to hew them square, and during this operation about half the log was chipped off and utilised for tanning.

YERBA MATÉ.

The Paraguay tea-shrub (*Ilex Paraguayensis*) grows wild in great abundance in Paraguay, the northern parts of Argentina, and some parts of Brazil. It is the favorite beverage (taking the place of tea) among the population of some 20,000,000 souls inhabiting the southern half of South America. The writer has seen the excellent results produced by its use among the lower class of Paraguayans, who do hard work for days together, without almost any food, if they are allowed a plentiful supply of maté; its sustaining powers are well known and have been confirmed by many travellers. The South American natives take their maté infused in boiling water, without the addition of milk, sugar, or any other substance; they, indeed, assert that any such addition neutralises the beneficial effects of maté; but foreigners, who find a difficulty in accustoming themselves to the peculiar taste of the decoction, generally take it with sugar and sometimes also with milk. The yerba maté grows wild in the woods. The leaves are collected, dried, roasted over a brushwood fire, then pounded into dust, which is rammed into bags made of raw hide until almost as hard as stone, and in this form it is sent to market. There is another mode of preparing it, not so common, by which the dried leaf is merely broken instead of being pounded; and in the writer's opinion this is preferable, as there is thus an absence of the fine dust contained in the pounded article, this dust causing an irritation of the throat, at least to foreigners. The natives sip the maté infusion through a small silver tube, called the "bombilla." When drunk in company, as it generally is, the custom is for each one to take a few sips and then hand the maté to his neighbour, more boiling water being added when the cup is drained. It is the custom to serve maté when a visitor arrives, and most refreshing it will be found after a walk or ride in the broiling sun. In Paraguay maté was sold recently as low as 3s. 6d. per arroba of 25 lbs., but prices have advanced to almost double since then. The principal centres in Paraguay for its sale are Villa Rica and Villa Concepcion; some

also finds its way through the river-port of Encarnacion. Although maté grows wild in great abundance, the attempts which have been made to cultivate it up to a recent date have proved fruitless. During the last few years, however, plantations of it have been established in Paraguay, and plants can even be purchased from nurserymen in Asuncion. There is a secret, however, in the cultivation of the plant, as the seeds will not germinate under ordinary circumstances, and I have been told that it is necessary to treat them with a potassium salt. In a wild state, it is said that the seeds must pass through the bodies of birds (which feed on them) before they will germinate. What truth there is in these statements I do not know. It is certain that large plantations of maté at one time existed in Paraguay; these were planted by the Jesuit missionaries more than a century ago, and it is said that their secret dies with them.

Reviews.

Registered Money-lenders, 1901. Together with a copy of the Money-lenders Act, and of the Regulations for registration under the Act. Pp. 175. 2s. 6d. net. London: The Argus Printing Company (Limited), Temple Avenue and Tudor Street, E.C.

THIS is a handy little volume containing the information set out above, the list of money lenders and loan societies and corporations being set out alphabetically according to the various localities. There is also a list of the exemptions and a general index to all money-lenders and partners in money-lending businesses in England and Wales.

Les Nouveautés Chimiques pour 1901. By Dr. POULENC. Paris: Baillière et Fils. Pp. x and 337; with 213 illustrations. 4f.

THIS little work maintains its reputation as a fair record of new chemical-apparatus described last year. It will prove of use to the practical chemist, who will find many "tips" for the arrangement of apparatus for various purposes. The fact that continental ideas rather than British receive most attention may be construed into an advantage to workers in this country.

The Stock Markets and How to Profit by them. By GEORGE J. HOLMES. 7½ × 4½. Pp. 74. 1s. net. London: The London Stock Market Report, Tokenhouse Buildings, E.C.

FOR those dealing or about to deal with stocks or shares this is a useful and handy little book. It forms the second of the Financial Handbook series, and deals with the buying of stocks and shares, the theory of successful speculation, investment securities, mine investments, dealing in options, and general principles for investors and speculators. In addition to this, at the end of the book are useful tables giving Stock Exchange parlance and an interest-table. The whole forms a neat little volume artistically bound in green cloth.

The American Annual of Photography and "Photographic Times" Almanack for 1902. Edited by WALTER E. WOODBURY. 9 × 5½. Pp. 347 and 71. 3s. post free. Geo. Houghton & Son, 88 and 89 High Holborn, W.C.

THIS is, perhaps, the most profusely illustrated of the photographic annuals, there being about 160 pictures distributed through the pages. Many of the illustrations are of a high order of merit, and, with the fifty contributed articles, cover a wide range of subjects. The collection of formulæ and tables enhances the value of the book, which is well worth the price charged for it.

Handbook on Petroleum. By Captain THOMSON, Chief Inspector of Explosives, and BOVERTON REDWOOD. London: Griffin & Co. Pp. xix and 298. 10s. 6d.

THIS volume should command the careful attention of all interested in the handling and storage of petroleum and allied products, as well as those using carbide of calcium. The work deals with the subject in a not too scientific manner. It begins with an historical account of petroleum

and its products, with accounts of the legislation on the subject, and a short chapter dealing in a general manner with the products from a chemical and commercial point of view. A very full account of testing petroleum—flash-test and fire-test—is given. A succinct account of the legislation on petroleum and the precautions to be observed in handling it leads up to a rather poor chapter dealing with petroleum-lamps. The information given in the book, so far as it goes (and it is really intended for inspectors and dealers), is scrupulously accurate, and the amount of legal information is large, and correspondingly useful.

Canadian Trade Index. A Classified Membership Directory of the Canadian Manufacturers' Association. 10 × 6½ in. Pp. 301.

THIS is a useful publication, which has been prepared by the Secretary of the Canadian Manufacturers' Association, Toronto, for the use of British, French, and Spanish importers. The "Index" contains the names of some 800 leading manufacturers of Canada, who have formed themselves into a voluntary association for the purpose of advancing the trading-interests of the country. It also contains a brief sketch of the leading export-manufacturers of Canada. Then follows an alphabetical list of the members of the Association, together with a limited list of the articles made by them. The third part contains an alphabetical list of the articles produced by the various members, under which appear the names of the manufacturers of each. The names of the articles are given in English, French, and Spanish.

A Treatise on Photography. By Sir WILLIAM DE WIVELESIE ABNEY, K.C.B., D.C.L., F.R.S. Tenth edition; 134 illustrations. 7 × 4½. Pp. 425. 5s. Longmans, Green & Co.

THIS is one of the series of "text-books of science" which have such a reputation for accuracy and conciseness. The present volume is not an exception. It deals with the scientific side of photography, but is at the same time practical, as it contains formulas and directions for making such things as gelatino-bromide plates, carbon tissue, and platinum-paper. The work has been considerably revised since the last edition, and without appearing to find fault with the present volume, we would suggest that more information be given as to the chemical composition of the numerous developing agents. Much of this is available in published patent specifications, but can only be made available to photographers by an expert.

Analysis of Resins, Balsams, and Gum-resins: their Chemistry and Pharmacognosy. By Dr. KARL DIETERICH. Translated from the German by Chas. Salter. 8vo. Pp. 340. London, 1901: Scott, Greenwood & Co. 7s. 6d.

THIS is rather a literal—indeed, in some parts, imperfect—English translation of Dr. Dieterich's book, the first to attempt to reduce resin analysis and bibliography to uniformity. We favourably criticised the German edition when it appeared, and although experience in working with the book has revealed some anomalies as regards analytical data and erroneous notions respecting the commerce of some resins, these are no concern of the translator, who has faithfully reproduced all Dr. Dieterich's statements without comment. It is regrettable that this should be the case. Had Mr. Salter been more familiar with the subject than he appears to be, he would not commit such blunders as writing "Ricinus Oil," and "Jalapa nodules." In reading the cold English translation, e.g., of the monograph on scammonium, one gets into confusion regarding the gum resin and the resin, which was not so when we read the German, and we are forced to the conclusion that the translator had little, if any, previous knowledge of scammonium and scammony resin when he began to translate. This remark applies to the translation as a whole. One who knows the subject can see the drift, but those who do not will frequently be misled. The book is well got up.

"THE ART OF DISPENSING," sixth edition, stands alone as the best guide in dispensing-difficulties.—*Pharmaceutical Journal.*

Essential Oils.

Estimation of Phenols, with Special Reference to Oil of Cloves.

VERLEY AND BOLSING publish a paper (*Berichte*, 1901, 3354) on the determination of alcohols and phenols, especially in essential oils, by a method they have elaborated. In a second paper they deal with the special applicability of the process to oil of cloves for the determination of the eugenol. The principle of the process is the esterification of the alcohol of phenol with acetic anhydride, with the addition of pyridine, which serves to retain the acetic acid formed during the esterification, thus preventing the reverse process of hydrolysis going on. The actual details of the process are as follows:—

One hundred and twenty grammes of acetic anhydride and 880 grammes of pyridine are mixed, care being taken that no traces of water are present. No reaction takes place, but on the addition of water the anhydride is decomposed with the formation of pyridine acetate, which is easily saponified by alkali. The acetic value can thus be obtained for the mixtures. From 1 to 2 grammes of the substance to be examined is introduced into a flask holding about 200 c.c., and 25 c.c. of the mixture of acetic anhydride and pyridine is added. It is then heated for fifteen minutes on a water bath without a condenser, which appears to be unnecessary, and after cooling 25 c.c. of water is added, and the free acetic acid titrated with potash, using phenolphthalein as indicator.

A number of results are given, some being of almost theoretical accuracy, and some are very much lower than they should be. Whilst correct results may follow in some cases, careful investigation is needed before the process can be said to be as accurate as the well-known acetylation method. This is well emphasised in the case of sandal oil and santalol. It is established that no pure sandal oil yields less than about 90 per cent. of santalol, and that pure santalol yields results agreeing with over 100 per cent., rather than under; but the new process gives only 81 per cent. for the oil, and 95 per cent. for the pure alcohol.

The second of the papers deals with Umney's and Thoms's processes for the determination of eugenol in oil of cloves. It is pointed out (as is well known) that the use of 10-per-cent. alkali causes some of the non-phenolic constituents of the oil to be absorbed, but that better results are obtained by the use of 3 to 4 per cent. alkali. Indeed, oils prepared by mixing known quantities of eugenol and terpenes gave results within 1 to 2 per cent., and very reliable result may usually be obtained by the absorption-process with dilute alkali. Three samples were prepared from pure eugenol and pure sesquiterpenes of 85 per cent., 90 per cent., and 95 per cent. strength. The three results in each case are as follows:—

	Per cent.	Per cent.	Per cent.
Actual eugenol value ...	85.0	90.0	95.0
Acetic-pyridine method ...	84.4	89.5	95.9
Absorption process (dilute) ...	85.3	90.0	95.0
Thoms's process ..	81.5	87.2	91.4

Two samples of normal clove oil also gave results in which the absorption and the esterification processes were in accord. Two other samples which were examined showed results in which Thoms's process was in very good agreement with the acetic-pyridine method; whilst Umney's process gave far too high figures—as much as 95 per cent., against 80 per cent. by the other two processes. The figures appear to us most unsatisfactory and unconvincing; but the authors sum up their conclusions as follows:—(1) The esterification-process with acetic anhydride and pyridine serves to determine the eugenol in oil of cloves so long as no other phenol or alcohol is assumed to be present. (2) Umney's method can lead to most erratic conclusions, except when the clove oil is one whose physical characters are quite normal throughout. (3) Thoms's process gives too low results when the oil contains a high amount of non-phenolic constituents.

UNSOLICITED TESTIMONIAL.—“Dear Sirs,—Your ‘Lavender Lozenges for Lonely Ladies’ are a wonderfully strengthening medicine. Three weeks ago I was too weak to spank baby, and now I can thrash my husband.”

Scientific Progress.

Oil of Citron.—The refraction observations made by Mr. Burgess (*C. & D.*, December 14, page 978) were noted at 20° C.

Yohimbine.—According to Spiegel, the alkaloid yohimbine, of which much information has been published recently, may be best prepared in the following manner. The powdered bark is treated with dilute acetic acid, and the alkaloid contained in the acid is precipitated by the addition of sodium carbonate. By recrystallisation from alcohol it can be obtained in the form of white needles, which are insoluble in water, melt at 234°, and have the formula $C_{25}H_{32}N_2O_4$, or possibly $C_{22}H_{30}N_2O_4$. Crystalline salts of the alkaloid are easily obtained.

Low Temperature.—M. Moissan at the meeting of the Academy of Sciences, Paris, on November 11, in the course of a paper on manipulating liquefied gas, gave the results of experiments made with solid carbonic acid with various liquids as solvents to see what temperatures could be reached. The evaporation was increased by a current of dry air, the liquids used being methyl alcohol, ethyl alcohol, methyl chloride, aldehyde, acetic ether, and acetone. Acetone was the best, giving a temperature of -98° C. If the current of dry air is previously cooled to -80°, the temperature falls as low as -110° C.—(*Nature*.)

Alkaloids of Ipecacuanha.—As confirming the remarks we made recently on the alkaloidal value of ipecacuanha, absurd guarantees of which are obtained from Hamburg, the following typical analyses appear in the *Pharm. Central.* (1901, page 720):—

	Rio Root, Per Cent.	Cartagena Root, Per Cent.
Emetin ...	1.45	0.89
Cephaëlin ...	0.52	1.25
Psychotrin ...	0.04	0.06

Oxalic Acid in a state of chemical purity can be prepared, according to Schmatolla (*Apoth. Zeit.*), as follows:—Dissolve 50 grammes of commercial oxalic acid in 120 grammes of absolute alcohol on a water-bath, and allow the solution to cool. It is then filtered, shaken with two or three drops of sulphuric acid (1:2), set aside for twelve hours, decanted from any deposited sulphates, the spirit distilled off, the residue dissolved in 200 or 300 c.c. of water, and the liquid left for several hours in an ice-chamber. Any impurities separating as a heavy oil are removed, the solution is filtered, allowed to crystallise in a dust-free place, the crystals being finally dried at 35° or 40° C., and then over calcium chloride in a desiccator.

A New Reagent for Aldehydes.—Hydroresorcin has been employed as a reagent for the detection of aldehydes, one molecule condensing with two of the reagent to form a crystalline compound. Erdmann proposes to use dimethylhydroresorcin in place of hydroresorcin, as the resulting products of condensation are very much more insoluble in water. The following aldehydes give condensation-products: Formic aldehyde, m.p. 187°-188°; acetic aldehyde, m.p. 139°-140°; furfural, m.p. 158°-160°; and benzoic aldehyde, m.p. 193°. By boiling the condensation-products with acetic anhydride under a reflux condenser water is abstracted, and anhydrides of characteristic melting-points are again formed. Cinnamic aldehyde and vanillin yield well-defined compounds in this manner.

Estimating Small Quantities of Copper.—M. Dhéré proposes the following method:—Destroy the organic matter by means of hot sulphuric acid, with the repeated addition of nitric acid to accelerate and complete the combustion. The copper is then obtained in solution in the form of sulphate of copper. The dilute solution is electrolysed by means of a current of 2 to 5 volts, kept up until a freshly immersed portion of the electrode is no longer coated with copper. A little nitric acid helps the electrolysis considerably. The weight of the copper deposited is found by weighing the electrode before and after the electrolysis. Copper can also be estimated by the colorimetric method based on the intensity of the colouration produced under the action of ferrocyanide of potassium.—(*C. R. Soc. de Biol.*)

Cyanide in Chloride.—F. B. Gatehouse suggests the following method of estimating cyanide in the presence of chloride volumetrically. Measure out a definite amount of the solution containing the cyanide and chloride. Run into it from a burette a decinormal solution of $AgNO_3$, until a permanent turbidity appears. At this stage of the process each c.c. of $AgNO_3$ solution which has been used will correspond to 0.013036 gramme of KCN. Note the reading of the burette, and run into the solution the same volume of silver-solution as was required to form the permanent precipitate, and again note the reading. From this point the $AgNO_3$ added is used in precipitating the chloride. Then add a few drops of K_2CrO_4 solution free from chloride, and, judging the end of the reaction by the appearance of the dark red silver chromate, estimate the chloride in the usual manner.—(*Chemical News*, lxxxiv, No. 2,187.)

Advertising Ideas.

A FACSIMILE LETTER.

We have received a specimen circular letter lithographed on ordinary notepaper, and, indeed, done well enough to make almost anyone not conversant with printing read it as a real letter, the part supposed to be written being lithographed in an ink much like "blueblack" in colour, while the engraved heading is in dead black. The workmanship is more commendable than the text of the letter:—

Fitzjohn's Promenade,
265 Finchley Road,
South Hampstead, N.W.

MADAM,—We wish to respectfully draw your attention to our modern pharmacy in your neighbourhood at the above address. This establishment was opened expressly for the purpose of dispensing high-class medicines and supplying the everyday wants of a home with drugs, sundries, and toilet articles, &c., at reasonable prices, and we believe we are correct in saying that it is the only establishment of its kind in your district. That there are other high-class chemists we freely acknowledge, but we are convinced that a comparison of our prices will show that theirs are from 30 to 50 per cent. the higher. We feel confident that if you will favour us with your patronage we shall afford you every satisfaction.

Your obedient servants,
p.p. J. H. Lewis (Limited),
J. KITCHING MATTERSON
(Managing Director).

October 14, 1901.

Mr. Lewis (Limited) is generous in admitting that his own (Limited) establishment does not possess the absolute monopoly of "high-class" pharmacy; but he might have found a more persuasive method of introducing himself to public favour than a simple reliance on cut prices alone.

THE FRESHNESS OF MAY.

An Oxford correspondent sends a copy of the *Oxford Times*, a journal with which we had not been previously very familiar. It contains a well-displayed advertisement of three columns, addressed to "The Inhabitants of Oxford and the Surrounding Districts," by May's Drug-stores (Limited), and containing the facetious remark that the advertisers "do not enter into competition with the vendors of various innocent preparations, too often sold as medicines. All medicines prepared and dispensed at our establishment" (the announcement concludes) "have the purity and freshness of May." Even these distracting witticisms are less sensational, however, than the following naïve paragraph which we discovered in the middle of the advertisement:—

READ THIS AND PROFIT THEREBY.

The toper's Nemesis, *delirium tremens*, has been practically defined as a performance of the devil's private *opéra-bouffe* company, with the victim's coverlet for a stage, and his brain for an orchestra. The effect of indulging too freely in a temperance drink, compounded with effervescent phosphate of soda, would be a performance of the same personage's ballet-company, with perhaps similar accompaniments; inasmuch as such preparation in some cases contains $8\frac{1}{2}$ gr. of white arsenic per lb., and in others $3\frac{1}{2}$ gr. of the same poison. Any kind of sickness is bad enough, but a sickness which is aggravated or prolonged by the very article which is intended for its cure is cruel. It is false economy to purchase cheap food or drugs.

DENTAL ADVERTISING.

The *Barnsley Advertiser* contains a prominent advertisement of the dental work of Mr. Arthur Oglesby, of that town. The arrangement of the advertisement is rather commonplace, the newspaper-printer evidently having been allowed to follow his own inclinations in respect to it; but a paragraph on nitrous oxide as an anæsthetic is so well and persuasively written that even a printer left to his own devices cannot make it inconspicuous:—

NITROUS-OXIDE GAS

is the safest of all known anæsthetics. With pure gas properly administered there is no danger, nor are there any unpleasant after-effects. For many years I have had ample proof of both its efficacy and harmless nature, and its suitability in teeth-extraction. It is not unpleasant (being devoid of taste and odour), and requires rather less than one minute to produce

insensibility to pain; within the next 20 to 30 seconds the tooth or teeth are extracted, the patient recovers complete consciousness, and is surprised to find that the offending teeth are gone, the whole operation—inhalation, extractions, and returning to consciousness—having lasted but 80 to 90 seconds; sometimes less. The erstwhile sufferer leaves the chair rejoicing, and declaring emphatically—"No more teeth out without gas."

An advertiser who can write like that ought to get on. He ought also to contrive to get his announcements better printed.

ONE HUNDRED AND SEVENTY-EIGHT YEARS AGO.

The following advertisement, copied from *Rider's British Merlin*, dated 1733, has been sent by a subscriber:—

STEEL TRUSSES FOR RUPTURES.

BAG-TRUSSES FOR FIXED TUMOURS.

Back-irons, and other Instruments for the Lame or Crooked, by PETER BARTLETT, Steel-truss Maker to the Chest of Chatham, for the help of his Majesty's Seaman; at the Golden Ball in St. Paul's Church-yard, near Cheapside, London. Persons in the Country sending their Bigness, and which side the Rupture is, may be supplied with the Trusses and proper Directions.

His Mother, Mrs. M. BARTLETT, at the Golden Ball in Fleet Street, near Fleet-bridge, is skilful in this Business to her own Sex.

THE VIRTUES OF MUD.

From New York there comes to us a magazine of 126 pages, devoted entirely to the advertisement of Mudlavia, an enterprise in the State of Indiana, where mud-baths are boomed as a cure for rheumatism, gout, eczema, and allied ailments. Of these pages 110 deal with explanations, descriptions of, and recommendations for these baths, and the illustrations are copious and excellently reproduced. A facsimile letter from the late Mr. McKinley is faced with "Foundation facts" by the treasurer and general manager, Mr. Henry L. Kramer, and many physicians and prominent citizens of the United States appear by pen and photograph to say a good word for the black mud of Indiana. The end pages contain stories by Bill Nye, Opie Read, G. W. Stevens, and W. L. Visscher, poetry by various singers, and the Mudlavia Polka. Verily "sweet are the uses of advertisement," and he that knows best its uses grows in grace—and in fortune.

Chemists' Calendars.

Mr. W. N. Cooper, dispensing chemist, Market Square, Mafeking, has produced a "New-century Almanack for 1902," which is equal in "get-up" and contents to any we have seen. The illustrations are reproductions of celebrated national pictures and views of popular English watering-places. Mr. Cooper, who has also a business at Kimberley, makes a feature of his photographic departments.

Messrs. Gibson & Son, chemists and opticians, Fore Street, Hexham, are issuing a "Pictorial Almanack," in which the dispensing, photographic, and optical departments are particularised. A concise article on "The Value of Vision" should be a good help for the optical department, as it brings home in a forcible but pleasant manner the harm which may result from neglecting to use spectacles where they are required.

Mr. J. G. Wallbridge, cash chemist and consulting optician, 52 Liverpool Road, St. Helens, is sending out a booklet entitled "Nursing-notes, Medical Guide, and Price-list for 1901-2." Mrs. Wallbridge, who has had a long training in sick-nursing, writes very pleasantly on that subject in a way which cannot fail to be helpful to those inexperienced in such matters. Mr. Wallbridge, has passed the Spectacle-makers' examination, and his sight-testing room is up-to-date, an improved ophthalmometer being employed to determine the correction for astigmatism.

To CLEAN A MORTAR there is nothing so effectual as lin. terebinthinæ (sine camphora, of course). To make this into an excellent furniture-cream to $\frac{1}{4}$ B.P. quantity add, secundum artem, $\frac{1}{2}$ oz. beeswax and q.s. aqua to equal the amount of turpentine present.

At the Counter.

Boy (customer): "Tin o' hypnotized milk." Locum (partially mesmerised): "Yes-er, you mean—" Helpful Shop-boy: "E 'as that 'ere patronised milk, sir." The Savo(u)ry article supplied. The incident happened in Liverpool.

FROM MARGATE.—Old Military Gent: "I want a large bottle of Elliman's embrocation, please." Genial Manager (who has been selling a fair amount of horse-embrocation lately): "For a horse, sir?" Old Military Gent (with grim smile): "No, sir; for an ass."



THIS seasonable picture tells how Mr. Smith, the obliging druggist, was treated by the irrepressible cabby, who invited Smith to take the cylinder of oxygen out to the cab himself.



A CHEMIST in the Northern district of London, who supplies this picture, says: "The names often given by the B.P. (British public) to substances mentioned in the B.P. are frequently comical enough; but for originality I think the following is as good as any I have heard. A small child came to my shop the other day and asked for 'a pennyworth of self-erasing ink.' What a useful preparation that would have been in the old copybook days of my childhood, when an unlucky blot was a signal for a rap on the knuckles or an imposition of so many lines! After due consideration I supplied the youngster with sulphate of zinc, which turned

out to be correct, as it was for 'mother's eyes.' A friend of mine, who heard it, was so tickled at the serious face of the child and the Sherlock-Holmes-like translation, that he gave me the pen-and-ink sketch."



OUR CUSTOMERS.—Irate Gent.: "See, sir. You sold me a bottle of your wretched hair-stuff, with a guarantee that it would make hair grow. Look at me! I will not be robbed with impunity!" &c. Chemist: "But, my dear sir, you have no hair to make grow!" (Fireworks!)

Medicinal Plants.



ROSA CANINA. (Mr. S. Manners.)

C. & D.: "Did you take all the medicine I put up for you in capsules?" Uncle Eben: "I did; and a bitter dose it was. Great fish-hooks, what did you put it in them little cups for? Took all my time digging the medicine out so I could take it."

is by volume. Similar curiosities are met in preparations containing glycerin and oils. Possibly the intention is to impress upon us that the unwritten law—"solids by weight, liquids by measure"—does not hold good in B.P. preparations. A reference under the above to the B.P. formula for ung. gallæ c. opio brings to my memory an explanation I had given me when a student. A certain Edinburgh examiner was in the habit of giving Minor candidates, "Make 1 oz. gall and opium ointment." Candidates were supplied with galls, opium, and benzoated lard, and were informed that neither more nor less than 1 oz. must be made. The candidates' frantic efforts at deciding which "ounce" was wanted and then making the necessary calculations gave such delight to the examiner, that at his special request the Editor of the B.P. retained the ancient formula.

Yours faithfully,
HYPERCRITICAL. (59/53)

B.P. Problems for Old and Young.

SIR,—There are many problems in the B.P. which could be submitted as exercises in pharmacy to our "new-bloods" which could be discussed, solved, or summed up in a "Problem Column," culminating in a prize to the student who answers most questions correctly. To set the ball rolling I will ask, under the preparation of *Linimentum hydragryri*, the following questions:—

- (1) The commercial liquor ammoniæ fortior is sp. gr. 0.880—the B.P. requires 0.891. How must I proceed in order to get the correct volume of the former for 160 minims of the latter?
- (2) What is the volume of the liniment of camphor which responds to the first "sufficient of"?
- (3) How much camphor would it contain?
- (4) What would the two together weigh?
- (5) What volume would the ointment of mercury occupy?
- (6) What is the volume of the "sufficient of" liniment of camphor in the second operation?
- (7) What will the final product weigh?
- (8) What will the final product measure?
- (9) Which is the better way to mix the two products, former to latter (B.P. reading) or latter to former?
- (10) What relation does the metal mercury by weight bear to the final product by weight and volume?

These, Sir, are not actual quibbles, but problems which puzzle the student as well as the teacher, and perhaps your readers will embark with me on this troublesome voyage of discovery and elucidation to the edification of themselves and the Editor of the B.P., and through him the General Medical Council, whose duty it is to ensure that the book is as free from errors, ambiguities, and difficulties as is possible, and so smooth the pharmacist's lumpy path in this age of "mend or end."

Yours faithfully,
ABEL SCHOLAR. (36/90.)

Poison-bottles Wanted.

SIR,—I cannot help thinking, now so much is being said about poison being put into ginger-beer bottles, &c., by chemists, that it would be wise to draw the attention of medical men who do their own dispensing to the same subject. I recently visited a country doctor, when he gave me a lotion composed of equal parts of laudanum and water in a 6-oz. bottle, marked in $\frac{1}{8}$ -parts, with a white label, at the same time giving me in a precisely similar bottle a mixture to be taken. Surely it is time the attention of the Medical Council was called to such cases. I also know of other doctors who have not a poison-bottle on their premises, and do their own dispensing.

M. P. S. (14/10.)

Chlorinated-soda Solution.

SIR,—What is the matter with the sol. chlorinated soda of our local pharmacies? I was asked to-day by a pharmacist my opinion of his chlorinated-soda solution. He brought me nearly a Winchester-quart bottleful, labelled B.P. and from a good firm. My test for ten years has been to put 5 c.c. in a phial, and ascertain the temperature immediately evolved by the addition of about 2 gr. of ammonium chloride in powder. This test was tried, and gave only a few degrees of temperature. Such solution might satisfy the B.P. tests, for aught I know to the contrary, but it would be utterly useless for the estimation of ammoniacal salts,

urea, albuminoids, &c. Such, moreover, has been my experience of liq. sod. chlor. for ten years—viz., it will not react upon urea solutions in the cold. It seems etiquette to bring the matter before the pharmaceutical and chemical journals before placing it before the sanitary authorities.

Yours,

A DOCTOR. (38/72.)

[Perhaps our correspondent might extend his experience by applying the B.P. test.—EDITOR.]

Assistants in South Africa.

SIR,—I am an assistant myself in this much-maligned country, and I should like to show fellows at home that the picture is not as black as it has been painted. In the first place we may look at the business hours, and see how they compare with those at home. The store is opened at 7 A.M. and shut at 8 P.M. On alternate days I get away at 7 P.M. When on duty from 7 A.M. till 8 A.M. I have three hours off for meals, and when off at 7 P.M. I have two hours off. On Saturdays we close from 1 P.M. till 6 P.M., and shut again at 8 P.M. The evening duty on Saturday I only take every other week, which gives me once a fortnight a half-holiday from 1 P.M. As the off Saturday coincides with my off Sunday, you can see that I get a good stretch every fortnight. Sunday duty is from 11 A.M. till 1 P.M., and 6.30 P.M. till 8 P.M. All public holidays fall to my lot; if not on the actual day, then I get another for it. As regards the class of business done out here, your correspondent seems to have a very poor opinion. Discounting "Boots, beer and bicycles," *inter alia*, which is absurd, I think the average business here is on a par with if not indeed on a higher scale than the average at home. The dispensing occupies the first place, and, as the doctors are all home men, it is as up to date as can be found anywhere in Britain. Leaving that aside, anyone coming out here has the chance of a veritable education as to how to buy and where, which if taken home and applied to business would put him far and away above the ordinary retailer. To say that one requires at least 17*l.* 10*s.* with a room in an inland town, if he wishes to keep his head above water, is absurd. After I was qualified I took a situation in a country town at 30*s.* per week. In five months I had a balance of 10*l.* saved. Coming out here and starting at 12*l.* per month in an inland town, in the same time I had more than double that amount to my credit. My necessary expenses per month are as follows: Board, 4*l.* 10*s.*; washing, 10*s.* My room I get free, which therefore adds from 30*s.* to 2*l.* monthly to my wages. I must say that I have never come across the bad food talked of by your correspondent. He must indeed be difficult to please who is not content with a *menu* of at least three items for breakfast, lunch hot, and as a finish to the day dinner with perhaps three joints and two sweets, beside vegetables galore on the table. I am afraid the comparison between the above and the man who lives on 1*s.* a day in London is rather far-stretched. Your correspondent ("Ixia") complains of the "cut-throat contracts for dispensing" as being partly responsible for the horrible condition of the assistant here; but all I can say is that our contracts, and we have a fair proportion, pay us "hands down." As a proof that there is something in all I have said I have in my mind three fellows who have served their three years here, gone home for a holiday, and come back within six months. Social life is not, of course, so good as at home, but when one can go to at least one dance a week all through the winter and card-parties nearly every other night there is not much cause to grumble.

Yours faithfully,
SATISFIED. (44/26.)

Quite Serious about it.

SIR,—What is the matter with "Xrayser"? Has he been dreaming, or is he a prophet and about to start a new mental science? He makes a positive statement about that which does not at present exist, except in its embryonic state, and of which he knows nothing. If that is not presumption, what is? He says: "The radical weakness of the metropolitan scheme is that it has no defined purpose." Firstly, how can you have a scheme without a defined purpose? Secondly, there is no "metropolitan association" formed to have a scheme. But there is a committee which has held one meeting to consider a scheme of its "defined purpose" for the formation of such a society. Then

"Xrayser" goes on to be a little insulting—this "brave committee," he says. I think he must have shaved himself too closely before writing that article. Why throw cold water on an attempt to benefit the trade of chemists? No one has been asked "to subscribe to it without any disclosure of the objects aimed at." Wait, "Xrayser," till you have tidings of the objects; then speak and write. In the meantime, "Xrayser," if you have a kindly feeling towards doing something for the benefit of the trade, you can send 10s. to pay for the room the committee occupied to consider the formula of a Society to be called the London Chemists' Association. I am one of that committee, and I protest against the assertions, remarks, and insinuations of "Xrayser." He closes his case by telling the story of an adventurer in the South Sea Companies' frauds, and he finishes with these words: "The office was only opened for a single day, but in that time over 2,000l. had been paid in, and the schemer was satisfied and decamped in the night." And "Xrayser" informs us that it was "a company for carrying on an undertaking of great advantage, but nobody to know what it was." If these remarks are not to apply to the committee, to whom and to what do they point? Why have written them at all? I may, perhaps, tell "Xrayser" that, if the Association be formed, it will not exist for the purpose of being in opposition to the Pharmaceutical Society; but I trust, like a dutiful son, will support it, and anything contrary to that would have my strongest opposition. There are a "thousand and one" important matters constantly coming before the trade, and which the Pharmaceutical Society could not deal with, but which a tradesociety might take up and dispose of for the good of all concerned. The committee will meet a second time in a few days, and after that "Xrayser" may be in possession of the "defined purpose"; and the "brave committee," I hope, will meet again and again, not to run away with 2,000l., but to unite 2,000 or more chemists in one object for their mutual benefit. When "Xrayser" sees the "defined purpose" of the Association we may be pleased to have his opinion as to the items that may require shaving down a bit. The committee, I feel sure, have no wish to fall out with "Xrayser," for we all know he is very clever.

Yours, &c.,

68 Fleet Street, E.C., December 21. GEO. P. POND.

The Chemist's Title.

SIR,—In reference to your December 21, page 1003, note, I had forgotten that the title "pharmacist" belongs by law to Major men only, but by how few, if any, is this title used?—to my mind the most clear description of what a compounding or dispensing chemist really is. His daily work has usually but little of pure chemistry in it, and has very little in the nature of an ordinary druggist.

Why not, as in France, have first and second class pharmacists? The title "chemist and druggist" is excellent for your journal, but the compounder of medicines, as seen by the note in the *Lancet*, December 7, 1901, is frequently called a druggist, and so considered by the public. I often feel that instead of grumbling at store-trading, and bewailing the loss of profit on patent medicines, &c., if we really combined it would be comparatively easy to educate the public to the fact that they pre-scription the require compounding should be well and carefully done, and for this a small but fair fee should be charged, not looking to it as a mere commercial transaction. Personally I have found this answer, not only in doctor-land, but in comparatively poor districts. I am convinced the pharmacist can educate his patrons to think well of him, and that he rarely gets complaints of over-charge.

Yours faithfully,

JOHN D. MARSHALL.

* The distinction has been abolished some time.—ED.

Dispensing Notes.

51/39. *Surgery*.—Copper in Nux Vomica.—The green colour of the nux mixture is undoubtedly due to the presence of copper in the tincture of nux vomica and the action of ammonia upon it. Such changes were not common when the tincture was made direct from the seeds, for the trace of copper naturally present in nux vomica is too small to give colour-changes under these conditions.

Now that the tincture is made from a liquid extract which is evaporated in the course of manufacture, contamination with copper from the evaporating-pans is too common. It is clear, from the fact that many mixtures do not change colour, that some manufacturers are careful to avoid such contamination, and it is a pity that this precaution is not universally observed.

Pill-excipient.

SIR,—Please give your opinion as to the best excipient for the following pills:—

Acid. carbolic.	...	...	gr. j.
Acid. salicylic.	...	...	gr. iij.
Menthol.	...	...	gr. ¼

Ft. pil.

Yours faithfully,

TRAGAC. (97/23.)

[See the article on this subject on page 1044]

What is Meant?

SIR,—Will you kindly inform me whether each powder in the following prescription should contain 3 gr. or ¾ gr. of calomel?

Yours truly,

N. M. P. (66/7.)

Hyd. subchlor.	...	...	gr. iij.
Sacch. alb.	...	...	gr. vj.

Ft. pulv. Mitte iv. chart.

Sig.: The powders. One at night.

[The prescription clearly orders 3 gr. of calomel in each powder, but if you have reason to believe they are for a child you should make judicious inquiries before dispensing it.]

A Sulphurated Lotion.

SIR,—We have a prescription to dispense as follows:—

Sulph. sublim.	...	...	3iij.
Calcis puræ	...	...	3j.
Aq.	...	...	3vii.
Coque ad	...	...	3vj.

Sig.: The lotion.

Can you inform us what calcis puræ is? We are unable to trace it.

Yours truly,

J. T. S. AND S. (69/67)

[Calcis puræ in the above prescription is obviously calcium hydrate, the recipe being for a sulphurated-lime lotion.]

Legal Queries.

Before sending in a query for reply in this section see if the subject is not dealt with in "The Chemists' and Druggists' Diary"—Trade Law or Pharmacy Law Sections.

93/61. *Careful*.—The words "prepared expressly for" imply that the pills are a speciality, and should be omitted from the label if you wish to avoid stamping.

87/55. *A. M.*—For the sale of goods from door to door a pedler's licence is required, but not a hawkers' licence. See THE CHEMISTS' AND DRUGGISTS' DIARY, 1902, page 266.

93/10 *Wilts.*—Your label for stomach-and-liver pills is not hable. Note that not more than two ailments may be specified.

91/47. *Company-chemist*.—Limited-companies whose articles of association admit it, may legally call themselves chemists and deutists.

89/41. *Mistura*.—We must refer you to the Poison-list in THE CHEMISTS' AND DRUGGISTS' DIARY, 1902, page 270, and the annotation on "Preparations of Poisons," page 272.

83/21. *J. W. L.*—We thank you for pointing out that in the article on methylated spirit (THE CHEMISTS' AND DRUGGISTS' DIARY, 1902, page 282, paragraph "Sale") 10 A.M. is printed in error for 10 P.M. We have made the correction and suggest that others will do the same.

92/29. *R. H.*—An employer is liable for an accident to an employé which occurs during the manufacture of aerated-

water with a machine worked by hand. Your second question should be referred to an insurance company.

92/15. *R. W.*—The effect of your omitting tr. camph. co. from the mixture and replacing it with codeine sulphate will be that you will transform it into a Part I. article, which not only requires to be labelled "Poison" but must be registered in the poison or prescription-book. See Poison-list, THE CHEMISTS' AND DRUGGISTS' DIARY, 1902, page 270.

88/30. *Know.*—The circumstances which you relate appear to justify the head master of the school in the action which he has taken in dismissing the boy. It was a case in which punishment, corporeal or otherwise, was necessary for the discipline of the school and the good of the lad, and the head master appears to have acted judiciously in giving the parents their choice of the method of punishment. Expulsion is a well-established custom in scholastic circles, and provided it is based on good grounds an action for the recovery of fees would fail.

90/33. *Medealf.*—The methylated-spirit licence is granted to those holding the off wine, beer, and spirit licences, but the quantity retailed at one time must not exceed 1 gal. (see THE CHEMISTS' AND DRUGGISTS' DIARY, 1902, page 282).

98/57. *O. Y.*—It is not illegal to use methylated spirit in a proprietary preparation for external use—for example, in chilblain-liniment and Devonshire oils—but the express permission of the Board of Inland Revenue must be obtained through the local Excise-supervisor.

95/73. *Hypo*—Poisons are not specially prohibited being sent by post, but the regulations prohibit the transmission of deleterious liquids or substances, which, however, are carried under the conditions specified in THE CHEMISTS' AND DRUGGISTS' DIARY, 1902, page 259. These regulations are, no doubt, applicable to poisons, although we have never heard of them being specially enforced in that regard.

Miscellaneous Inquiries.

74/49. *Radix.*—Thanks for yours *re* the sixpenny-prescription chemist. You surely do not suppose that he makes his living by that sort of thing, any more than stores do by selling catch articles at cost or less.

53/21. *Ulexine.*—(1) Sal-volatile Substitute:—

Carbonate of ammonia	...	...	3j.
Strong solution of ammonia	...	...	3ij.
Volatile oil of nutmeg	...	...	℥xx.
Oil of lemon	...	...	℥xx.
Glycerin	...	...	3v.
Water to	...	...	3x℥.

Dissolve the carbonate in the glycerin and water; add the oil, well shake, and stand for a day; then filter, and add the solution of ammonia.

(2) *Alternative Dog-mixture.*—The following will suit your purpose:—

Balsam of sulphur	...	...	3j.
Castor-oil	...	...	3ij.

Dose: A teaspoonful night and morning.

65/42. *Sav.*—To get a situation in the wholesale you should watch the Coloured Supplement, where all the vacancies in that branch of the trade are advertised. As you have no experience of the wholesale, you will not command a big salary; and we gather from the number of years you have been in the retail that you are not a young man. Have you applied at the large works in your locality?

49/42. *S. H.*—We must refer you to "Pharmaceutical Formulas" for the recipes for soluble essences, as we cannot spare space in this column to repeat them.

68/37. *Pig Iron.*—We do not know what is administered to rabbits to improve their coats for show-purposes, but careful and frequent brushing of the coat with a soft brush is commonly practised.

73/58. *Cheshire.*—Calais sand is quite harmless.

62/48. *A. E. B.*—White Liniment as your sample:—

Ol. terebinth.	...	...	...	3iv.
Camphor.	...	...	...	3ss.
Ol. adipis	...	...	...	3iss.
Liq. ammoniac	...	...	...	3ss.
Sapo. mollis	...	...	...	3ss.
Ol. origani	...	...	...	3ij.
Aq. destillata	...	...	...	3ij.

Shake the lard oil and ammonia together till a thin cream results, and place aside. Mix the soap with the water till homogeneous, and add to it with constant trituration, the turpentine in which the camphor has been dissolved. When the emulsion is formed, mix in the ammonia mixture previously formed, and add the oil of thyme.

55/64. *W. E. T.*—The Fly and Maggot Oil is made from coal-tar cresol and linseed-oil potash soap. Equal parts of these ingredients are heated together until a clear mixture results.

70/18. *Lip Salve.*—It is customary to pass a hot spatula over the top of lip-salve tubes to heal up the shrinkage which cooling causes.

58/41. *India (Ceylon).*—(1) The best means of aerating milk, situated as you are, is by the use of sparklets, made by Aërotors (Limited). (2) Preserving Flowers.—If the stems of the flowers are inserted in a weak solution of either ammonium chloride, potassium nitrate or sodium carbonate, it is said that they can be preserved for at least two weeks. We doubt it.

76/61. *Farmer* asks the cause and what treatment is available for a cow that yields, towards the end of milking, pure blood from one quarter only. [Bloody milk has a variety of causes, but often comes from weak blood-vessels or thin partitions of the glands. The following tonic is useful:—

Alum	...	...	...	3j.
Sulphate of iron	...	...	...	3ij.
Powdered gentian	...	...	...	3ij.

To be given as a drench daily in 1 pint of tepid water at night.

The cow should be fed well. If turnips are being given, discontinue for the present; linseed-cake will be found beneficial; 10 gr. of alum in $\frac{1}{4}$ pint of warm water injected by means of a test-syphon attached to a piece of bottle-tubing and a syringe, when the quarter has been stripped clean, should also be used daily.]

84/63. *D. W.*—Blackboard Paint:—

Shellac	...	...	...	3iv.
Lampblack	...	...	...	3ij.
Emery-powder	...	...	...	3j.
Ultramarine	...	...	...	3j.
Spirit	...	...	...	Oil.

Dissolve the shellac in the spirit; place the lampblack, emery and ultramarine on a cheese-cloth strainer, pour on part of the shellac solution, stirring occasionally, gradually adding the rest of the solution, until all the powders have passed through the strainer.

84/64. *Amalgam.*—Please refer to our last Educational Number, September 7, for information regarding qualification in dentistry.

81/43. *G. A.*—(1) Emulsions made with Irish-moss-mucilage are not as stable as gum-emulsions if the moss is not well washed with boiling water or otherwise sterilised: then they keep as well. (2) You should address the question about a stopper to a wholesale house. How can we possibly tell whether a house can supply one or not?

89/53. *Irishman.* Situations in the Australian colonies are rarely offered at home. The best course for anyone to adopt is to go to the desired colony with recommendations from recent employers and London wholesale houses. Before leaving this country it is advisable to advertise one's wants in the *Chemist and Druggist of Australasia* so that on arrival at Sydney or Melbourne the emigrant may find himself in touch with some who want his services. Unqualified men are not required in Australia. The British minor and the Irish licences admit to registration in all the colonies except New South Wales.

Information Supplied.

NOTE.—Subjoined are replies to queries printed in previous issues as indicated by the numbers. It is requested that any writing to the firms named will mention "The Chemist and Druggist" as the source of their information.

250/49. "Tom Smith's" crackers are made at 65 to 69 Wilson Street, E.C.

243/84. The "Monarch" cameras are made by Mr. T. P. Bethell, 115 Islington, Liverpool.

54/4. Ung. aq. rosæ (cold-cream), recommended by Gerrard, *C. & D.*, xlvii, 737. After many experiments I find the best way of making this to be as follows:—Place 10 oz. adeps benz. in a large enamelled iron evaporating dish, place it over heat till half is melted; remove from heat, and stir till remainder of lard is dissolved; add mv. otto ros. and stir, and then the 4 oz. of aq. rosæ in quantities of about 1 oz. at a time, stirring slowly with a spatula backwards and forwards (not in a circular direction), proceed, and thus the making of this preparation only takes about 35 minutes—it is certainly one of the quickest-made and cheapest cold creams, and I find gives satisfaction.—S. (54/4.)

Crystals in Clay.—Mr. W. Spencer Turner (Norwich) writes, in reference to reply 30/71 "J. H. G.," in the *C. & D.*, October 26:—"I should like to remind you that crystals of sulphate of calcium often occur in blue clay; they are very soft and easily scratched, and, I believe, are very troublesome to brickmakers. They are of all sizes—up to 4 inches or more. I do not know whether quartz crystals are found in clay."

41/53. Volasem is a proprietary preparation manufactured by a New York concern, and claimed to be an antidote to cocaine. It is advertised to dentists as a preventive of the depression and other ill effects which sometimes follow hypodermic injections of cocaine. It is claimed to be an extract of the violet. It may contain violet, but an examination made some months ago showed its active ingredient to be eserine. It has a pleasant odour, and is probably a mixture of the fluid extracts of Calabar bean and violet, with possibly the addition of some heart-stimulant like digitalis or strophanthus. It is sold in 1-dr. bottles at \$1 each! A preparation for a similar purpose is advertised under the name of "Scivaleño," the active constituent of which is caffeine present in a fluid extract of tea.—75/18.

Sloe Gin.

SIR,—I enclose a form for this which I use, and which gives very great satisfaction:—

Sloes	...	...	...	...	3 lbs.
Gin	...	...	...	...	3 pints
Sugar	...	...	...	...	4 lbs.

Of course, the proportion of sugar can be varied, but some ought to be used. J. J. P. (76/53.)

Another subscriber sends the following:—

Gin	...	...	...	...	1 gal.
Sloes	...	...	...	...	3 qts.
Bitter almonds	...	...	...	...	$\frac{1}{2}$ oz.
Sugar	...	...	...	...	2 $\frac{1}{2}$ or 3 lbs.

Put into a stone jar, cork well, shake twice a week for three months, strain and bottle.

Fish-frying.

ANON.

SIR,—I noticed some time ago you were asked for information about a powder to be added to batter to fry fish in. When living in the Midlands we always sold a cheap baking-powder. J. J. P. (76/63.)

Information Wanted.

Postcard replies to any of the subjoined inquiries will be esteemed.

86/90. Polozone: where obtainable?

99/41. Maker or dealer in "cocoa shells for anæmia"—an article put up in packets.

Pharmacy in Alexandria.

ALEXANDRIA is a cosmopolitan town where medicine is plentifully in evidence by an astonishing number of brass-plates, Dr. So-and-So, &c. Of the sister profession, pharmacy, no complaint can be made by the public as regards quantity, even should quality still be a much-desired factor. Alexandria, with its thirty-three pharmacies, some legitimate and others outside the fringe of the law, can only be said to possess eight of standing and repute—one English, two Italian, one Syrian, one German, two Greek, and one French. Many so-called pharmacies exist where the proprietor has acquired his knowledge in some Greek grocer's shop, and where the law is hoodwinked by the occasional visit of a native with Egyptian diploma, whose sole duty consists in the consumption of cigarettes and coffee. The Egyptian Government, as represented by the Sanitary Administration, has shown in this matter up to the present a painful indifference and lack of supervision, which may in part be ascribed to the difficulties, consular and others, occasioned by the Capitalisation Act. It is to be hoped that the recent appointment of an inspector of pharmacies will lead to some reform.

Alexandria differs from Cairo in the fact of its having very few European visitors during the winter months (when Cairo is crowded), and in consequence it sees comparatively few of the travelling prescriptions so common in London, Paris, Florence, Rome, &c. By some Alexandrian chemists this form of prescription is regarded with fear and trembling, and sometimes a by no means too correct appreciation of 3 and 3 signs, or even the names of ingredients, obtains. For example, one worthy pestle-pounder gave liq. ammon. fort. for sal volatile, much to the discomfort of the rueful purchaser, who took it by the teaspoonful dose.

Gum arabic and senna-leaves are hawked about from shop to shop, and good bargains can be made by those who have sufficient spare time and knowledge of Arabic to bargain with the native, who invariably demands three or four times the sum he ultimately accepts.

Urine analyses are frequent; the examination generally is limited to albumen and sugar, with occasional microscopic work. Medical men have here, as in Italian towns, one or two pharmacies which they visit daily, and where they sometimes see patients, and it is the rule for clients to send to the pharmacist, who communicates to the doctor the expected visit.

Cachets are often prescribed in quantities of twenty or thirty. Powders are not much used. Packets of crushed roots and dried leaves or flowers are also very common. Pills are not nearly so frequent as in home dispensing, and in liquid preparation salts in solution with orange syrup is the rule. Tinctures are generally prescribed in drop form. French influence is seen in the many "Tisanes" sold and Italian pharmaceutical ideas in the emulsions and mixtures of aromatic distilled waters.

As regards prescribed patents, French put-up goods are easily first, which may be accounted for by the fact that most of the medical men are French speaking, have French books of reference, and are billed and personally visited by the agents of French manufacturing firms. B. W. & Co.'s goods are seen anywhere, and their tabloids are frequent items in prescriptions.

In Egypt the dispensing is exclusively the property of the pharmacist. Surgeries (as known in England) are unknown. As a consequence, dispensing is plentiful, and in some of the leading pharmacies over one hundred prescriptions are dispensed per diem. Owing to the introduction of English and American newspapers, periodicals, &c., with attendant advertisement, there is a growing demand for English and American preparations.

The business of the principal houses is not confined to the city, but embraces also country orders, in which eye-lotions and purgatives figure largely. English wholesale houses are beginning to recognise the value of Egypt as a market. Some of the more enterprising of them have given the securing of orders to some established commission-agent, through whom the goods are received and payment arranged. German houses have long followed this course.

JOHN MACGREGOR.

Trade Report.

NOTICE TO BUYERS.—The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers stock the goods. Qualities of drugs and oils vary greatly, and higher prices are commanded by selected qualities even in bulk quantities. It would be unreasonable for retail buyers to expect to get small quantities at anything like the prices here quoted.

42 Cannon Street, London, E.C. : December 24.

BUSINESS is now virtually suspended in the Mincing Lane drug and chemical markets, and it is not anticipated that it will be seriously resumed until the next drug-sales, which take place on January 9. For *Ambergris* of fine quality 120s. per oz. has been paid for a small lot. Japanese crude *Camphor* has been sold at lower prices, several hundred piculs having changed hands for January-February shipment at 160s. per cwt., c.i.f. The Liverpool market is practically bare of *Guinea grains*, but here a parcel of fair bright is obtainable at 65s. per cwt., spot. Liquid Californian *Honey* is obtainable at 35s. per cwt., spot. *Marshmallow-root* is again dearer, and for good decorticated 52s. 6d. per cwt., c.i.f., is now wanted. For Chinese *Star-aniseed* there are sellers at 57s. per cwt., c.i.f., which is easier. The *Shellac*-market closed easier last week, the quotation for fair second orange TN, on the spot, being 125s. per cwt. and 135s. for firsts. Button has been inquired for, and full rates have been paid on the spot. In futures a sale of 100 cases, January-delivery, is reported at 122s. In Chinese *Oil of Star-anise*, a declining market is reported from Hong-Kong with free sellers. On the spot 4s. 10d. is quoted, and for arrival 4s. 6d. per lb., c.i.f. Sicilian essential oils of *Lemon*, *Bergamot*, and *Orange*, are all unchanged, one agent asking 2s. 8d., 7s., and 5s. 9d. per lb. respectively, c.i.f. terms. As regards *Opium*, about 50 cases changed hands on the Smyrna market during the week ending December 13, including 28 cases new current talequale at 7s. 8d. per lb., 3 cases Karahissar type at 7s. 10d., and 18 cases old Karahissar talequale selected at 8s. 3d. There are few sellers in Smyrna at present prices, or otherwise a larger business would have been done. The weather continues favourable for the sowings. The arrivals to date amount to 2,794 cases, against 3,548 cases at the same period last year. Chemicals generally maintain the position occupied at the time of our last report, *Cream of tartar*, best white French crystals, being worth 71s. to 71s. 6d. per cwt., and powder 73s. 6d., with B.P. quality quoted 77s. to 78s. *Tartaric acid* is quoted 11½d. to 11¾d. for English on the spot, and 10½d. for foreign. *Citric acid* is 1s. 1d. per lb. For best white powdered *Arsenic* 15½. 15s. to 16½. per ton is now quoted. *Carbonate of Ammonia* is very scarce on the Continent, and no reduction from the present high price is expected. Double-distilled *Glycerin* (sp. gr., 1.260 quality) is unchanged at 63½. to 65½. per ton in tins and cases, and German make 64½. to 74½. Crude glycerin is lower, and quoted 27½. to 29½. per ton. *Carbolic Acid* is dull of sale for both crude and crystals; B.P. quality of detached crystals is quoted 8¾d. to 9d. per lb. Montreal *Potashes* continue to advance, 26s. 3d. to 26s. 6d. per cwt. being now quoted. *Pearlshes* are unchanged at 40s. *Sulphate of Copper* is easier, at 19½. per ton spot for good brands, and 18½. f.o.b. Liverpool. The *Quinine* market in second-hands is reported steady, but practically no business has been done. There are buyers on the spot at 1s. 1¼d. per oz., and for March delivery 1s. 1½d. is quoted. *Pepper* is lower, and

transactions small. Singapore black is quoted 6½d. per lb. on the spot, and 6¾d. to arrive. White is also quiet, but quotations are unchanged. *Cloves*, Zanzibar, are lower, business having been done for March-May delivery at 4½d. per lb.

Arrivals.

The following drugs, &c., have arrived at the principal ports of the United Kingdom from December 19 to 23 inclusive:—*Arrow-root* (@ St. Vincent), 221 brls.; *halsams* (@ Savanilla), 31 pkgs.; *carraway-seed*, 100; *castor oil*, (Ital.) 130, (Belg.) 81; *chamomiles*, 15; *cinchona*, (@ Amsterdam) 268, (@ Guayaquil) 16; *cocaine*, crude, (@ Callao) 10 cs.; *coriander-seed*, 50; *drugs*, (@ Panama) 22 pkgs., (@ Savanilla) 9; *ginger* (@ Bombay), 250 cs.; *gum*, unenumerated (@ Colombo), 44 pkgs.; *honey* (@ Jamaica) 10; *ipeacacuanha* (@ Havre), 41; *juniper-berries*, 100 bags; *lime-juice* (@ Calcutta) 15 cs., (@ Dominica) 218 pkgs., (@ Jamaica) 52 pkgs.; *lime oil* (W.I.), 40 pkgs.; *olibanum* (@ Bombay), 27; *opium*, (@ Genoa) 75 cs., (@ Calcutta) 27; *pimento*, (@ Havre) 600 bags, (@ Jamaica) 791 pkgs.; *potash chloride* (@ Rouen), 68; *saffron*, 1; *shellac*, 74; *button-lac*, 24; *tamarinds*, 2, (@ St. Kitts) 28 brls.; *turmeric* (@ Calcutta), 45 bags, 500 pockets; *wax*, bees', (Ital.) 23, (Aust.) 7, (E.I.) 12; *wax*, ceresin, (@ Hamburg) 20, (@ Dusseldorf) 65.

German Drug Market.

Hamburg, December 23.

Business is very quiet here in view of the holidays. **ALOES.**—Cape is strong at 76m. per 100 kilos. **BALSAM PERU**, is firmly held at 26½m. per kilo. **CUMIN-SEED** is lower at 52½m. to 52m. per 100 kilos. **CITRIC ACID** is quiet at 235m. per 100 kilos. **LYCOPodium** is very firm at 445m. per 100 kilos. **MENTHOL** is quiet and little doing at 30½m. per kilo. **CAMPHOR.**—Refined is unchanged, with second-hand holders asking 430m. per 100 kilos. **STAR, ANISEED**, is quiet at 125m. per 100 kilos. **COD-LIVER OIL** is firm at 70m. per barrel for non-congealing oil. **PALM-KERNEL OIL** is very scarce and firm with a strong demand, spot being quoted 54m. per 100 kilos. **ESSENTIAL OILS** are practically unaltered.

Turkey Opium.

The British Consul at Salonica, in his annual report for 1900, states that 80 tons of opium, valued at 105,000l., were shipped from the vilayet of Kossovo (Uscub) during the year. This is an increase of over 80,000l. compared with the previous year, which increase was partly due to the addition of the Kimpulu district to the Kossovo vilayet, and partly also to the ever-increasing cultivation of the poppy in preference to the less remunerative corn. It was an excellent crop, and the collection was attended with magnificent weather. The 80 tons stated as the yield is probably under the estimate. Poppy-seed was correspondingly abundant, 35 tons being reckoned to each ton of opium.

Shellac.

A valuable and interesting pamphlet on the shellac-industry, written by Dr. Geo. Watt and Mr. D. Hooper, has been issued as one of the *Agricultural Ledger* series. The subject has been dealt with in detail, and the authors appear to have taken considerable pains and trouble to obtain direct information. For instance, they obtained an invaluable series of samples in illustration of the details narrated, from practically every district in India where a trade in lac or an industry in lac-manufactures exists. There are 347 pages of reading-matter, and they include a history of lac and lac-dye; India's external trade in lac; the production and cultivation of lac; the manufacture of lac and lac-dye; the chemistry of lac and lac-dye; and the industrial and art uses of lac and lac-dye.

Amsterdam Chamber of Commerce.

The annual report of the Amsterdam Chamber of Commerce on the trade, shipping, and industry of that port during 1900 has been issued. Among the articles dealt with in the report are cocoa-butter, cassia fistula, cubebs, benzoin, varnish, gums, cinchona, cloves, essential oils, &c., but the information concerning them is now stale. It may be mentioned, however, that 777 bags of cubebs were sold last year, the arrivals being 534 bags. In 1900 the arrivals of benzoin were much larger than in the preceding three years; fine descriptions were wanting. Altogether 570 piculs were imported, and 810 piculs sold. The business in cajaput oil was insignificant. At first 1.40fl. per bottle was paid of 0.6 litre; by the end of the year it was vainly offered at 1.25fl. About 5,000 bottles were imported, and in December 1900 there remained unsold 3,600 bottles. In kananga oil, the trade was very satisfactory until autumn, and the value advanced from 8fl. to 12½fl. per proper size bottle of 0.6 litre, but it afterwards fell to 10fl. nominally; 2,910 bottles were sold.

Consular Counsel.

BAGDAD.

Tragacanth was formerly exclusively obtained from the Persian provinces bordering on the Bagdad province and exported by the Tigris route, but the demand from Great Britain, Germany, and the United States has led to the exploitation of the extensive supplies in the Astragal district of the Fars province. It is to be regretted (says the Austrian Consul at Bagdad) that the collection, which means an average yearly income of 1,000,000 kronen for the country, should be conducted in so rough and primitive a way as to threaten the extinction of the industry. It is hoped that the authorities will prohibit the burning of the Astragal districts, and introduce a more careful method of obtaining the produce. In 1900 tragacanth was first exported by the Karun route. The quantities exported were as follow:—From Bushire, 5,580 quintals to England, 7,900 quintals to India.

The demand for so-called Persian insoluble gum has considerably fallen off in Europe; prices have declined, and less energy is now shown in the gathering. The exports *via* Mohammerah amounted to scarcely 1,900 quintals in 1900, against 2,700 quintals in the previous year.

The production of opium in the Fars provinces, after a depreciation from 1895 to 1898, is increasing again. Unfortunately adulteration has also increased, which has led to several parcels being rejected in East Asia and returned to their owners. The prices in 1900 rose to nearly 160k. per case, and the export increased to over three-quarter million kronen. The amount exported from Bushire to China was 4,275 cases (7½ million kronen), against 4,399 cases in 1899 (6.9 million kronen); to Great Britain, 351 cases (0.5 million kronen), against 234 cases (0.3 million kronen). Further, smaller shipments were sent to Egypt and India. From the interior of Persia not quite 200 cases (17,600k.) were sent for the first time by the Ispahan Ahwaz Karun route to Mohammerah, the greater part of which was sent on to Hong-Kong. The export of opium *via* Bunder Abbas fell from 725 cases in 1899 to 226½ cases in 1900. The export of Bunder Abbas was almost exclusively to East Asia in both years.

The rose of Schiraz has obtained commercial importance on account of the production of rose-water and other perfumeries in the metropolis of the Fars province. As regards quality and quantity the yield was especially satisfactory, so that the export advanced considerably. Shipments to the value of 118,400k. went to the chief markets of India, against 29,600k. in 1899.

CONSTANTINOPLE.

The Austrian Consul at Constantinople in his annual report for 1900, deals with mastic, galls, canary-seed, salep, &c. Regarding mastic, the harvest was a good one, and prices satisfactory. The mastic of commerce is almost exclusively obtained from the island of Chios, and Germany and Austria-Hungary imported the bulk of it last year. As regards canary-seed, this comes chiefly from the provinces of Rodosto and Gallipoli, the first-named province supplying the larger proportion and of better quality. There was a good harvest, and prices varied from 31 to 38 paras. The bulk of the business was effected through Constantinople, and Great Britain was the principal consumer, with Germany a buyer in small quantities. Of salep there was a very poor harvest in 1900 and prices were high, but demand was fairly active, so that by the end of the year stocks were reduced to about fifty sacks. About two-thirds of the harvest was sold in Turkey itself, and the remainder went to Germany, Austria, and Russia. There was a satisfactory harvest of Anatolian galls, the only description exported from Constantinople. The white galls are chiefly exported to the German tanneries, while the blue are principally in demand for Bohemia for the manufacture of ink. The tanning factories, however, have not confined themselves to Anatolian galls, having continued to use Chinese galls, to which they had recourse when the Anatolian harvest failed, as it did for four or five consecutive years. An epidemic among the gall-wasps was the cause of it.

FRANKFORT.

This is a valuable report written by Consul-General Oppenheimer on the trade of the consular district of Frank-

fort-on-Main (No. 2,680, 3½d.), but it practically covers the whole of Germany, and deals exhaustively with the present industrial crisis. In the drug-chemical world, which had become one of the most flourishing of German industrial conquests, and which at the Paris Exhibition gained perhaps the most universal praise, great disappointment was expressed at the commercial results of 1900, owing to keen competition and the great number of new pharmaceutical preparations which are incessantly brought on the market. 1899 had been a brilliant year. The import of raw materials had increased by 245,300 tons, the export by 69,000 tons, or expressed in values the increase in import of raw materials amounted to 35,000,000m., the increase in export to 32,000,000m.; the value of imported manufactured goods increased by 4,200,000m., and the value of exported manufactured goods to 26,200,000m.; the number of establishments increased by 489 per cent., and though wages increased by 7.75 per cent., the average dividends of chemical concerns amounted to 13.52 per cent., as against 12.69 per cent. in the preceding year; while in 1900 the expense of manufacturing was much increased by the price of coal, and the further increasing wages, the troubles in China, and the plague and famine in India considerably lessened the demand.

MADEIRA.

The British Consul at Madeira, in his report for 1900, states that an increasing trade is being done with Germany in photographic goods and chemicals. Photographic plates and papers continue to be a British monopoly, but mounts, chemicals, and photographic accessories are largely imported from Germany. Cheap hand-cameras, close imitations of well-known American patterns, are being imported and sold at reasonable prices. They are made to take British-sized plates, and evidently bear a fair margin of profit. If some of our British makers were to study this branch of business more carefully a fair trade would result. Chemical-manures are imported in large quantities from the United Kingdom.

SPAIN.

American Consul-General Hughes, under date of August 1 reports that the development of beet production in Spain has created such a demand for artificial manures that Spanish dealers find it very difficult to fulfil contracts. Valencia alone imported from England 50,000 tons ammonia sulphate, 8,000 tons superphosphate of lime, and 20,000 tons saltpetre last year. A large increase in the demand for artificial manure from the Canary Islands is also noted. England furnishing the greater part. Mr. Hughes thinks that American exporters might secure the greater part of this market, if they would send people to look after it.

ITALY.

According to the Austrian Consul at Palermo, the total exports of manna were reduced from 1,359 quintals in 1899 to 1,090 quintals in 1900, whereas the shipments to England rose from 120 quintals to 399 quintals, and those to Austria-Hungary fell from 357 quintals to 109 quintals. This is owing to the erratic demand usually experienced in this article. It is surprising that the exports only fell off 20 per cent. last year, as in several Sicilian districts the production was almost a failure, the gathering being hindered by heavy rains. The stocks on hand, however, helped to relieve the scarcity.

Citrate of lime was exported in increased quantities. In 1900 the export amounted to 5,430 quintals, or almost double the amount in 1899. Of this total 2,399 quintals were shipped to Great Britain, 1,540 quintals to Germany, 1,059 quintals to the United States, 340 quintals to France, and 65 quintals to Austria. This is a good result for a comparatively new industry.

The export of essential oils of lemon, bergamot, orange, &c., in 1900 amounted to 585 quintals, being 137 quintals less than in 1899. Of this amount 346 quintals went to Great Britain, 100 quintals to the United States, and 53 quintals to Austria-Hungary.

The export of liquorice-juice was about one-third less in 1900 than in 1899, being 383 quintals only. Great Britain took the largest quantities for the manufacture of stout and tobacco for chewing.

